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Matter and Form in Aristotle.

A Rejoinder

by

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Lecturer in Philosophy, University of Pennsylvania,
Philadelphia, Pa. U.S.A.

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William Rosenau

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§ 1. I managed with great pain to read through Dr. Neumark's reply, in numbers three and four of volume XXIV of the "Archiv", to my criticism in volume XXIII ib. of his Aristotelian chapter in the first volume of his history of Jewish philosophy. The reading was painful not merely by reason of the vulgarities with which Neumark's pages abound, I am willing to let that pass, for after all every one is free to write in the manner and style best suited to his nature and disposition. What made me impatient even more than the vulgarity of tone is that I was obliged to wade through so many pages of matter that was irrelevant, and was merely befogging and bemuddling and calculated to throw dust. Dr. Neumark has the unfortunate capacity of obscuring and confusing whatever he handles, no matter how clear and simple it is in itself. We shall have occasion to see examples of this in the sequel.

Now in order not to waste time and words in personalities after the manner of Neumark, I shall proceed at once to the subject, and try to be as brief as possible. There is only one general remark I wish to make before taking up the details, and that is that after reading over carefully the ninety two pages which Neumark wrote in reply to my twenty four, I do not find that there is any thing to change in my criticism, and it accordingly stands in its original form. What I learned from Neumark's reply is that in writing his book he never consulted either Simplicius on the Physics, or Alexander on the Metaphysics, or Bonitz on the Metaphysics. For if he had, he could not possibly have made some of the self-evident blunders which he did. He consulted some of these authorities later for the points in which I refer to them directly, but apparently it was already too late, he was already committed to what he said in his book, and must defend it tooth and nail, and where argument is not adequate, personal abuse of the opponent supplies the defect. In the great

majority of cases where I did not refer to the authorities, he does not seem to have consulted them, and in abusing me he is unwittingly abusing Alexander and Simplicius and Bonitz, for these are my authorities in the interpretation of Aristotle, as they must be the authorities of every one who can see straight and is unbiased. Alexander is the most ancient commentator of Aristotle we have, and the best. Simplicius comes next in importance. Bonitz is the best modern commentary on the Metaphysics, but he could not have written it if Alexander had not written his, and as a matter of fact he agrees with Alexander almost throughout, except in small details. The importance of Bonitz is that he cites a great many parallel passages, so that the reader need not take his word for his interpretation in certain difficult passages, but is led to see Aristotle explain himself. My purpose in this reply is to justify the general remark I just made, to show the hollowness of the attempted defence of his position which Neumark undertakes, and to explain more clearly some simple matters which were to me so self-evident when I wrote my criticism that I contented myself with a brief hint, or a mere calling attention to the fact of the error, which brevity, however, was taken advantage of in a most disingenuous way by Neumark so that a statement on my part seems called for. Now to come to the subject.

§ 2. **The "Metaxü": —**

It remains true that the metaxü as defined by Neumark, viz. a primitive compound consisting of pure ὕλη affected by the simplest form, "a form-minimum", as Neumark calls it, is a product of Neumark's imagination. The use of metaxü in chapter 5 of the first book of the Physics is irrelevant to the matter under discussion, and the only passage which is relevant, namely ch. 6, p. 189 b 3, uses the term in a different sense, and if anything is rather to be understood as formless ὕλη than as formed, for Aristotle wants a something that is free from contraries, whereas Neumark's metaxü, if it possesses a "form-minimum", is already endowed with one of the contraries. It is true that if we think of pure στέρησις as an element in γένεσις, it is impossible to get rid of contraries even in the absolutely formless ὕλη, for there would be the absence of form, ἀσχημοσύνη, which is the contrary of presence of form, but Aristotle is here thinking

of positive contraries, such as hot and cold, wet and dry, etc. The fact is that Aristotle has not yet formulated his idea of ὕλη or of εἶδος, and is not yet ready either to ask or to answer the question whether the metaxü is absolutely formless or formed. The proof of this is that when he seriously takes up the question of the process of γένεσις, he does not use the term μεταξύ at all, as inadequate for his new conception. His conception of ὕλη is sometimes relative, sometimes absolute. Absolute ὕλη is ἄγνωστος καθ' αὑτήν and ἐπιστητὴ κατ' ἀναλογίαν, it is the ὕλη which has no form at all; relative ὕλη may be any concrete object, natural or artificial, ἄνθρωπος, κλίνη, in relation to a new form about to be assumed, μουσικός, λευκή. In the discussion of γένεσις Aristotle operates almost altogether with relative ὕλη, he never uses the term in the sense of Neumark's μεταξύ, at least there is no instance in which such a concept is called for, i. e. where ὕλη in one of the two senses I mentioned is inapplicable, and since Aristotle nowhere defines any such metaxü as Neumark suggests, it is a pure figment which may be dismissed without further ado.

The reference to Plato's Timaeus, if it is at all relevant to the discussion, which I doubt, instead of confirming Neumark's view, rather shows how baseless it all is. For it is quite clear that if a parallel is to be drawn between the passage in the Physics above mentioned, 189 b 3, and the passage in the Timaeus 50 C, ἐν δ' οὖν τῷ παρόντι χρὴ γένη διανοηθῆναι τριττά, τὸ μὲν γιγνόμενον, τὸ δ' ἐν ᾧ γίγνεται, τὸ δ' ὅθεν ἀφομοιούμενον φύεται τὸ γιγνόμενον· καὶ δὴ καὶ προσεικάσαι πρέπει τὸ μὲν δεχόμενον μητρί, τὸ δ' ὅθεν πατρί, τὴν δὲ μεταξὺ τούτων φύσιν ἐκγόνῳ . . ., to which Neumark refers us, the μεταξύ in Aristotle corresponds not to the μεταξύ in Plato, but to the ἐν ᾧ γίγνεται, for the μεταξύ in Plato is the product in the process (τὸ γιγνόμενον), whereas the μεταξύ in Aristotle is the ἀρχή, the principle or element in the process. Moreover in 51 A, where Plato characterises the ἐν ᾧ γίγνεται or the μήτηρ, he employs almost the exact terms that Aristotle uses for the μεταξύ. Aristotle says: διόπερ . . . ἀναγκαῖον . . . ὑποτιθέναι τι τρίτον, ὥσπερ φασιν οἱ μίαν τινὰ φύσιν εἶναι λέγοντες τὸ πᾶν, οἷον ὕδωρ ἢ πῦρ, ἢ τὸ μεταξὺ τούτων. δοκεῖ δὲ τὸ μεταξὺ μᾶλλον· πῦρ γὰρ δὴ καὶ γῆ καὶ ἀὴρ καὶ ὕδωρ μετ' ἐναντιοτήτων συμπεπλεγμένα ἐστίν. διὸ καὶ οὐκ ἀλόγως ποιοῦσιν οἱ τὸ ὑποκείμενον ἕτερον τούτων ποιοῦντες.

Plato writes, 51 A, *διὸ δὴ τὴν τοῦ γεγονότος ὁρατοῦ καὶ πάντως αἰσθητοῦ μητέρα καὶ ὑποδοχὴν μήτε γῆν μήτε ἀέρα μήτε πῦρ μήτε ὕδωρ λέγωμεν...*

If then Aristotle uses the term *μεταξύ* for that which Plato calls not *μεταξύ* but *μήτηρ* and *ὑποδοχή*, it is quite clear that Aristotle did not get the term from Plato at all, and the citation of Plato in this connection for Neumark's purpose is irrelevant, nay, it speaks against him. As a matter of fact no one before Neumark thought of connecting Aristotle's *μεταξύ* here with Plato's *μεταξύ* in the Timaeus. Simplicius, who names the advocates of the various views cited by Aristotle in the above passage, does not mention Plato for the *μεταξύ*, but Diogenes. These are his words, p. 30?, 2, *ὡς Θαλῆς μὲν ὕδωρ, Ἡράκλειτος δὲ πῦρ, Ἀναξιμένης δὲ ἀέρα, Διογένης δὲ τὸ μεταξύ.* And a little further on he says, objecting to the four elements mentioned, *ὅλως δὲ εἰ μετ' ἐναντίου ἐστίν* [sc. the *ἀρχή*], *οὐκέτι ἁπλοῦν ἔσται, ἀλλὰ σύνθετον.* It is clear therefore that this cannot be the *μεταξύ* of Neumark, for that is decidedly *σύνθετον*. Besides, Aristotle expressly compares the *ὑποκείμενον* with Plato's *πανδεχές* of the Timaeus in De Caelo (a physical work), III, 8, p. 306 b 17, *ἀειδὲς καὶ ἄμορφον δεῖ τὸ ὑποκείμενον εἶναι· μάλιστα γὰρ ἂν οὕτω δύναιτο ρυθμίζεσθαι, καθάπερ ἐν τῷ Τιμαίῳ γέγραπται, τὸ πανδεχές.*

When Neumark says I deny that there are contradictions in the Aristotelian system, he is throwing dust in the reader's eyes. What I denied is the Neumarkian distinction between the Physical writings and the Metaphysical, and the reason I deny it is because no such distinction exists, since the only evidences to the contrary adduced by Neumark are based on misapprehensions, mistranslations and blunders. The Metaxü just discussed is a case in point, and is fundamental, for it is by reason of this concept that Neumark is led to distinguish between *ὕλη* in the Physics and *ὕλη* in the Metaphysics, between special steresis and general steresis, etc. etc.

§ 3. **The Motive of Becoming: —**

The essential elements in the process of *γένεσις* are, in any given case, say in the *γένεσις* of *ἄνθρωπος* (1) the *ἐσχάτη ὕλη*, let us say the *καταμήνια*, (2) the *στέρησις*, i. e. the *συμβεβηκός* of the *καταμήνια* in virtue of which they are not yet *ἄνθρωπος*,

(3) the form of ἄνθρωπος finally assumed by these καταμήνια, and (4) the external ἄνθρωπος, or form, which sets the process in motion. By the motive principle in becoming I mean the latter. The only answer to the question why the καταμήνια become ἄνθρωπος is the κινοῦν, the real and actual ἄνθρωπος from without. Now in the passage under discussion in the Physics, Aristotle has nothing to say about this latter. He is only discussing the internal elements, so to speak, τὰ ἐνυπάρχοντα αἴτια, or στοιχεῖα properly speaking. Aristotle himself makes the distinction clearly in the Metaphysics Λ 4, p. 1070 b 22 sq. ἐπεὶ δὲ οὐ μόνον τὰ ἐνυπάρχοντα αἴτια ἀλλὰ καὶ τῶν ἐκτὸς οἷον τὸ κινοῦν, δῆλον ὅτι ἕτερον ἀρχὴ καὶ στοιχεῖον ... ὥστε στοιχεῖα μὲν κατ' ἀναλογίαν τρία [sc. εἶδος, στέρησις, ὕλη], αἰτίαι δὲ καὶ ἀρχαὶ τέτταρες ... ὑγίεια, νόσος, σῶμα· τὸ κινοῦν ἰατρική. εἶδος, ἁταξία τοιαδί, πλίνθοι· τὸ κινοῦν οἰκοδομική ... ἐπεὶ δὲ τὸ κινοῦν ἐν μὲν τοῖς φυσικοῖς ἀνθρώποις ἄνθρωπος, ἐν δὲ τοῖς ἀπὸ διανοίας τὸ εἶδος ἢ τὸ ἐναντίον, τρόπον τινὰ τρία αἴτια ἂν εἴη, ὧδὶ δὲ τέτταρα. ὑγίεια γάρ πως ἡ ἰατρική, καὶ οἰκίας εἶδος ἡ οἰκοδομική, καὶ ἄνθρωπος ἀνθρώπου γεννᾷ.

It is clear from this passage also in what sense the efficient cause and the formal cause are the same. They are the same εἴδει not ἀριθμῷ, to use Aristotelian terms. They are not in any individual case identical, ὑγίεια γάρ πως ἡ ἰατρική. But the physician's art, which was in his head all along, and which continues after health is produced in a given case, is not identical with the latter, it is of the same species and they are both form, but no more. Even in so called self-moving things, the mover is different from the thing moved, which latter is composed of matter and form.

§ 4. Steresis: —

Having explained what I mean by the phrase the motive of becoming, it is clear that in a given case neither the form nor the matter of the thing produced, nor the στέρησις which the form displaced, can be called motives, the efficient cause alone can have that name.

As to the function of στέρησις in γένεσις, it is to be thought of as follows: Take a given product, say μουσικὸς ἄνθρωπος. It is made up of (ἐκ) (1) the ὑποκείμενον or ὕλη (in relative

sense) ἄνθρωπος, and (2) the εἶδος or μορφή, μουσικός. These are actually in the product, ἐνυπάρχοντα, and hence we can say of the resulting product ἐκ τούτων (μουσικός and ἄνθρωπος) πρώτων ἐστὶ καὶ γέγονε μὴ κατὰ συμβεβηκός (cf. 190 b 18), it is composed of the matter and the form in a real sense. But the matter, ἄνθρωπος, could not have assumed the form μουσικός and become μουσικὸς ἄνθρωπος unless it had the συμβεβηκός, ἄμουσος, which, moreover, disappears as soon as μουσικός appears, and is not found in the result, οὐκ ἐνυπάρχει. Therefore μουσικὸς ἄνθρωπος can be said to come from ἄμουσος only κατὰ συμβεβηκός, i. e. in an indirect sense, and hence steresis is of decidedly less importance than the other two principles. It is not at all unfortunate to say of στέρησις in reference to a particular discussion, "and may be dispensed with", and Zeller is of the same opinion. Cf. Philos. d. Griechen, 3 d ed. II 2, 318 note 3. "Neben Form und Stoff wird die στέρησις, da sie kein selbständiges Prinzip, sondern nur etwas dem Stoff als solchem, dem noch ungeformten Stoff, zukommendes ist, nur mit einem gewissen Vorbehalt, und nur in dem kleineren Teil der hergehörigen Stellen besonders aufgeführt." If it requires "bodenlose Unwissenheit" to make such a statement, the present writer is flattered to share it with Eduard Zeller.

§ 5. **Special and General Steresis: —**

If I understand Neumark he means by "special steresis" that which the μεταξύ has, and which prompts it to continue in its development. "General Steresis" is that which belongs to absolutely formless ὕλη, which leads it to the first step in assuming form, and to every other thereafter. I do not find any such distinction in Aristotle, and naturally so, since not Aristotle but Neumark is responsible for the μεταξύ. What Neumark means to prove by the citations on p. 284 of his reply I do not know. They prove no more than the passage in the Physics under discussion.

The discussion of στέρησις just given will also clarify the passage in the Physics 190 b 17 ff., which gives Neumark so much trouble. It is really not difficult if we think clearly, and take care not to confuse ideas which have nothing to do with each other. Neumark confuses the different modes of conceiving a given process of γένεσις with the different kinds of γένεσις. It is the former

with which Aristotle is concerned in the above passage. He is speaking there, as I said, of *γένεσις* in general, i. e. what he says applies to *γένεσις ἁπλῶς*, for ex. the *γένεσις* of *ἄνθρωπος*, as well as to *γένεσις* in the other senses, *κατὰ τὸ ποσόν*, *ποιόν*, etc. He takes as an example, however, an instance of *γένεσις κατὰ τὸ ποιόν*, viz. *ἄνθρωπος μουσικός*, and his purpose is to show that in any given case of *γένεσις*, if we want to name the *ἀρχαί* from which the result comes *οὐ κατὰ συμβεβηκός*, in the sense in which I explained it above, i. e. if we want to name the real *ἀρχαί* which are actually in the product, there are only two, matter and form. If, however, we wish to include also that *ἀρχή* which is not in the result, and which is therefore an *ἀρχή* only *κατὰ συμβεβηκός*, we have three *ἀρχαί*. This is what Simplicius means. It is all very simple and clear, and the twistings and turnings of Neumark, pp. 395—398, are quite uncalled for. Neumark is so muddled that he cannot see the simplest things straight, and accuses of ignorance any one who is not so afflicted. The other quotations from Simplicius in Neumark are quite irrelevant, and therefore misapprehended because he tries to read his own ideas in Simplicius. I do not care to enter into further details, for the reader who is interested and can see straight, and is in a position to consult the sources under discussion, will see the justice of this view.

When Aristotle calls *στέρησις*, *εἶδός πως* and *ἕξις πως*, it does seem like a contradiction to his statement that it is *μὴ ὂν καθ' αὑτό* and *οὐδαμῶς οὐσία*, but not necessarily so, if with Baeumker (Das Problem der Materie in der griechischen Philosophie, p. 218) we distinguish between two kinds of *στέρησις*, positive and negative. When *ἄμουσος* becomes *μουσικός*, we have the second kind of *στέρησις* which is *μὴ ὂν καθ' αὑτό* and *οὐδαμῶς οὐσία*, when *λευκός* becomes *μέλας*, or vice versa, we have steresis of the first kind, which is in a sense a *ἕξις*, as the positive quality that it is, it is still *στέρησις* in relation to the opposite quality which it is not. This distinction I express briefly on page 450 of my criticism, beginning fourth line from the end, and there was no need of such excitement on the part of Neumark.

It will be convenient in this place also to refer briefly to Neumark's lucubrations on pages 312—317, in which he tries to make a distinction between *οὐκ ὄν* and *μὴ ὄν* in Aristotle. The best

answer here is the briefest, that there is no such distinction in Aristotle, and hence when Aristotle in one instance calls *στέρησις, μὴ ὂν καθ' αὑτό*, and in another says of it *οὐκ ὄν εἶναι καθ' αὑτήν* and *οὐδαμῶς οὐσία*, the meanings are all identical.

On p. 451 of my criticism I say: "That the natural scientist is interested primarily in matter and the phenomena of matter is not precisely what Aristotle says": Neumark, p. 287, denies that he said it. But I find on p. 308 of his book, "Die Naturwissenschaft hat sich hauptsächlich mit dem Stoff und den Erscheinungen an demselben zu befassen".

§ 6. **Separability of Forms: —**

All commentators are agreed that Aristotle believes that the forms of sensible things are not separable from the things themselves except in thought. The only forms that are separate or separable in reality are, the Deity, the Spheral spirits, and the active intellect in man. This being the case, the passage in H, 1 of the Metaphysics, p. 1042 a 26 sq. is in accordance with the views of Aristotle expressed elsewhere, and offers no difficulty whatsoever. None of the commentators find it troublesome in any sense. Aristotle there says that the form of *οὐσία αἰσθητή* is *χωριστὸν λόγῳ*, that the *ἐκ τούτων* is *χωριστὸν ἁπλῶς*. Then he adds a qualifying statement that of *οὐσίαι κατὰ τὸν λόγον*, i. e. of forms, some are *χωριστὰ ἁπλῶς*, some are not. Now as Aristotle cannot be supposed to contradict himself in the same sentence, we must understand that by the forms which are *χωριστὰ ἁπλῶς* he means those three classes mentioned above. This is the way the passage is understood by Alexander. Aristotle's text reads: *αἱ δ' αἰσθηταὶ οὐσίαι πᾶσαι ὕλην ἔχουσιν. ἔστι δ' οὐσία τὸ ὑποκείμενον, ἄλλως μὲν ἡ ὕλη (ὕλην δὲ λέγω ἡ μὴ τόδε τι οὖσα ἐνεργείᾳ δυνάμει ἐστὶ τόδε τι), ἄλλως δ' ὁ λόγος καὶ ἡ μορφή, ὃ τόδε τι ὂν τῷ λόγῳ χωριστόν ἐστιν· τρίτον δὲ τὸ ἐκ τούτων, οὗ γένεσις μόνον καὶ φθορά ἐστι, καὶ χωριστὸν ἁπλῶς· τῶν γὰρ κατὰ τὸν λόγον οὐσιῶν αἱ μὲν αἱ δ' οὔ.*

Following are the words of Alexander: *ἄλλως μὲν οὖν ἐστιν ἡ ὕλη οὐσία καὶ ἄλλως ὁ λόγος καὶ ἡ μορφή, ὃ τόδε τι ὂν τῷ λόγῳ ἐστι χωριστόν, ἀλλ' οὐ κατ' ἐνέργειαν. τρίτη δ'ἐστιν οὐσία τὸ σύνθετον τὸ ἐξ ὕλης καὶ εἴδους, οὗ μόνον ἐστι γένεσις, ὡς δέδεικται, καὶ φθορά, καί χωριστὸν*

κυρίως καὶ καθ' αὑτὸ ὄν, ἀλλ' οὐ τῷ λόγῳ μόνῳ, ὥσπερ τὸ εἶδος. εἰπὼν δὲ ὅτι τὸ εἶδος τῷ λόγῳ μόνον ἐστὶ χωριστόν, λέγει ὅτι τῶν κατὰ τῶν λόγων οὐσιῶν (κατὰ λόγον οὐσίας, ὡς πολλάκις εἴρηται, λέγων τὰ εἴδη) αἱ μὲν αἱ δ' οὔ, τουτέστιν αἱ μέν εἰσι τῷ λόγῳ χωρισταί, αἱ δὲ καὶ ἁπλῶς. ἐπειδὴ γὰρ τὸ ἕκαστον εἶδος ἡ ἑκάστου ψυχὴ τυγχάνει (ἡ μὲν γὰρ τοιάδε μορφὴ οὐδέποτε χωρίς ἐστι τῆς ὕλης), ἡ δὲ ψυχὴ οὐ πᾶσα ἀλλ' ἡ λογικὴ χωρίζεται, διὰ τοῦτο τὰς μέν φησι χωρίζεσθαι τὰς δ' οὔ. μήποτε δὲ οὐ περὶ τῆς μορφῆς τοῦτο εἴρηται (καίτοι καὶ τούτου ἀληθοῦς ὄντος· οὐδέποτε γὰρ ἡ βρότειος μορφὴ ἄνευ ὕλης εἶναι δύναται), ἀλλὰ περὶ τῶν ἀλόγων ψυχῶν, ὅτι αὗται μὲν οὐ χωρίζονται, ἀλλὰ μόναι αἱ λογικαί.

So too the passage in ch. 17 of Z p. 1041 a 7 sq., *ἴσως γὰρ ἐκ τούτων ἔσται δῆλον καὶ περὶ ἐκείνης τῆς οὐσίας ἥτις ἐστὶ κεχωρισμένη τῶν αἰσθητῶν οὐσιῶν,* refers no doubt to the deity, as Alexander understands it. For it is clear from the nature of the remark that it is some other matter, beside that directly under discussion, which Aristotle expects to have light thrown upon as a result of the discussion. Hence the words *ἴσως* and *καί*.

Now what objections has Neumark to the passage 1042 a 26 and its natural interpretation? He says Aristotle would not call the concrete thing *χωριστόν*, he never does so anywhere else. This is not true. In Met. Z 14 p. 1039 a 30 we read: *εἰ οὖν ἐστί τις ἄνθρωπος καθ' αὑτὸν τόδε τι καὶ κεχωρισμένον . . .* If the concrete *ἄνθρωπος* is called *κεχωρισμένον*, why can he not be called *χωριστόν*? Neumark himself (p. 348 note of his book) says that *κεχωρισμένη* in 1041 a 7 sq. is used in the sense of *χωριστή*.

Again in the first book of the Physics, ch. 2, p. 185 a 31 we read *οὐθὲν γὰρ τῶν ἄλλων χωριστόν ἐστι παρὰ τὴν οὐσίαν· πάντα γὰρ καθ' ὑποκειμένου τῆς οὐσίας λέγεται.* Here it is clear from the connection and from the last statement that *οὐσία* is used in the sense of *πρώτη οὐσία* in the Categories, i. e. as the concrete object in contradistinction to the other nine categories.

The passage in the Metaph. Z 3, p. 1029 a 27, *καὶ γὰρ τὸ χωριστὸν καὶ τὸ τόδε τι ὑπάρχειν δοκεῖ μάλιστα τῇ οὐσίᾳ, διὸ τὸ εἶδος καὶ τὸ ἐξ ἀμφοῖν οὐσία δόξειε ἂν εἶναι μᾶλλον τῆς ὕλης,* speaks against Neumark rather than for him, for Aristotle says distinctly here that *τὸ ἐξ ἀμφοῖν* is *οὐσία* because it is *χωριστόν*. The

turn which Neumark gives to this passage so as to make it favor his view, namely that the reason the concrete can be called *οὐσία* is because it contains the *εἶδος*, which is the real *χωριστόν*, may be ingenious, but it is not true, for *τόδε τι* and *χωριστόν* are placed side by side in this passage, and must be treated alike. Now would Neumark venture to say that Aristotle does not call the concrete a *τόδε τι*, and that the only reason the concrete is called *οὐσία* is because it contains the *εἶδος*, the real *τόδε τι*? I fear he would not. For *τοδε τι* is as a matter of fact more applicable to the concrete than to the form. See Categories ch. 5, p. 3 b 10 sq. *πᾶσα δὲ οὐσία δοκεῖ τόδε τι σημαίνειν. ἐπι μὲν οὖν τῶν πρώτων οὐσιῶν ἀναμφισβήτητον καὶ ἀληθές ἐστιν ὅτι τόδε τι σημαίνει . . . ἐπὶ δὲ τῶν δευτέρων οὐσιῶν φαίνεται μὲν . . . οὐ μὴν ἀληθές γε, ἀλλὰ μᾶλλον ποιόν τι σημάινει.* The correct interpretation therefore of the above passage in the Metaphysics is the less ingenious but more natural one that the reason the concrete as well as the *εἶδος* are *οὐσίαι* is because they are both *χωριστά* and *τόδε τι*. To be sure they are *χωριστά* in different senses, the one is *λόγῳ χωριστόν* the other *ἁπλῶς*.

Alexander understands it in exactly the same way. These are his words: — *τῇ κυρίως οὐσίᾳ ὑπάρχει τὸ χωριστὸν καὶ καθ' αὑτὸ εἶναι καὶ τὸ τόδε τι, ἤτοι τὸ εἰς δεῖξιν πίπτειν, ἡ ὕλη χωριστὴ καὶ καθ' αὑτὴν οὐκ ἔστιν οὐδὲ εἰς δεῖξιν πίπτει, ἡ ὕλη ἄρα οὐκ ἔστιν ἡ κυρίως οὐσία. μάλιστα δὲ τὸ εἶδος δόξειεν ἂν εἶναι οὐσία ὡς ὁριστικὸν καὶ εἰς τάξιν ἄγον τὴν ὕλην· καὶ τούτου μάλιστα τὸ ἐξ ὕλης καὶ εἴδους, ὅτι τε καθ' αὑτό ἐστι καὶ εἰς δεῖξιν πίπτει. ὅταν δὲ λέγῃ ἀδύνατον δέ· καὶ γὰρ τὸ χωριστὸν καὶ τὸ τόδε τι ὑπάρχειν δοκεῖ μάλιστα τῇ οὐσίᾳ, τὸ χωριστὸν ἀντὶ τοῦ καθ' αὑτὸ εἶναι λέγει. . .*

The *πρῶτος φιλόσοφος* deals with *χωριστά* in both senses of the term. When he deals with the forms of sensible things, with *τὸ ὂν ᾗ ὂν καὶ τὰ ὑπάρχοντα ᾗ ὄν*, he is dealing with *χωριστὰ λόγῳ*. When he deals with the deity and the spheral spirits, he is dealing with *χωριστὰ κατ' ἐνέργειαν* or *τῇ ὑποστάσει*.

We have therefore easily disposed of all the objections Neumark brings forward to the passage in the Met. H, 1, 1042 a 26, except one, and that is derived from the fourth book of the Metaph. ch. 8, p. 1017 b 23, *συμβαίνει δὴ κατὰ δύο τρόπους τὴν οὐσίαν λέγεσθαι, τὸ θ'*

ὑποκείμενον ἔσχατον, ὃ μηκέτι κατ' ἄλλου λέγεται, καὶ ὃ ἂν τόδε τι ὂν καὶ χωριστὸν ᾖ· τοιοῦτον δὲ ἑκάστου ἡ μορφὴ καὶ τὸ εἶδος.

Here there is a difficulty. For it is opposed to at least two other passages in which the form of sensible things is said to be *χωριστὸν λόγῳ* only. These are the passage H, 1, 1042 a 26, which was quoted above, and Physics II, 1, p. 193 b 3 sq. *ὥστε ἄλλον τρόπον ἡ φύσις ἂν εἴη τῶν ἐχόντων ἐν αὑτοῖς κινήσεως ἀρχὴν ἡ μορφὴ καὶ τὸ εἶδος, οὐ χωριστὸν ἀλλ' ἢ κατὰ τὸν λόγον.* For this reason both Alexander and Bonitz say that *χωριστόν* here means *χωριστὸν λόγῳ*. This, however, does not remove the whole difficulty for, as Neumark suggests, it seems from this passage that the form only is *χωριστόν* and not the *ὑποκείμενον ἔσχατον*, or the concrete. But if Neumark had joined the expression *τόδε τι*, as he was bound to do, in his argument, he would have proved more than he intended, for he would have had to say of the *τόδε τι*, just as he says of the expression *χωριστόν*, that Aristotle could not say here that in the concrete the form alone is *τόδε τι* if he had anywhere called the concrete a *τόδε τι*. This reductio ad absurdum should have kept him from building too much upon this passage. However, leaving Neumark aside, the passage is peculiar, and the best way of harmonizing it with the rest of Aristotle is by supposing that it is with a view to *ὕλη* that he emphasizes the fact that *εἶδος* is *τόδε τι* and *χωριστόν*, meaning that *ὕλη* is not, but the *σύνολον* is surely both, and it needed no saying it. This passage did in fact give Alexander trouble, and he suggests a number of explanations of the phrase *καὶ ὃ ἂν τόδε τι ὂν καὶ χωριστὸν ᾖ*, insisting that *τὸ εἶδος τῆς ὕλης ἕτερον καὶ χωριστόν, εἰ καὶ μὴ ὑποστάσει, ἀλλὰ τῷ γε λόγῳ* (p. 575, 31) and also *μόνον τῶν ὄντων χωριστὸν καὶ καθ' αὑτὸ ὂν ἡ οὐσία* (ib. 376, 7).

We have now disposed of all the difficulties of Neumark and have shown that most of them, in fact all but one, are no difficulties at all, and are of Neumark's own making. Neumark, however, who never sees things like other people, finds the easy and simple passages difficult, and the difficult easy. To him the difficulties he enumerates p. 288 of his reply were real, and he proceeded therefore to manipulate not the passage in *Δ*, 8, but that in H, 1, 1042 b 26, and what did he do with it? He translated it in an impossible way. If he cannot see that his rendering is impossible, I can only give him my sympathy.

His rendering would be impossible even if the passage were absolutely irreconcilable with Aristotle's views, which it is not. His rendering is impossible linguistically, not to speak of the other impossibilities in doctrine which it involves, and which I mentioned in my criticism, but which Neumark does not answer. For when he says, p. 317, that he uses the word "zukommt", "Das Werden kommt der Materie zu", and not "daß diese dem Werden unterworfen ist", I say that I care not what Neumark says, I am concerned with Aristotle and not with Neumark. Aristotle uses neither "zukommt" nor "unterworfen", he says *οὗ γένεσις μόνου καὶ φθορά ἐστι* without any qualifications, and in enumerating the three kinds of *οὐσία* he could never say that of these three matter alone has *γένεσις* and *φθορά* when he told us clearly in ch. 8 of Z that only the *σύνολον* has *γένεσις* and *φθορά*, but neither the matter alone nor the form alone. Aristotle's statement in the Physics I, 9 that *ὕλη* may have *γένεσις* and *φθορά κατὰ συμβεβηκός* will not help us in the least, because (1) our passage comes soon after the passage in the Metaph. in which the contrary view was clearly stated, (2) the statement is made without qualification, and (3) not even the passage in the Physics will explain the word *μόνου*, for surely the *σύνολον* also has *γένεσις* and *φθορά*, and all the three *οὐσίαι* are here enumerated. Finally what Neumark means by saying (p. 318), that *χωριστὸν λόγῳ* applies only to the "Form i m Einzelding", but not to the "Form f ü r s i c h" (p. 288), I do not know. The very question is whether the form of sensible things can exist f ü r s i c h, apart from the concrete object in reality or not. Aristotle's belief is that it cannot. The mind can think of it apart from the matter and the concrete object by abstracting from the latter, but in reality it is never found except in connection with matter and in a concrete object. This is what is meant by *χωριστὸν λόγῳ*, and it is always used in the same sense and applied to the same kind of form. The question might legitimately arise, why not call matter also *χωριστὸν λόγῳ*? Can we not also think of matter apart from form by abstracting from its form? The only answer to that would be, I imagine, that *χωριστόν* also involves *τόδε τι*, i. e. it connotes not merely separability, but also definiteness, and actuality, both of which *ὕλη* absolutely lacks.

§ 7. **Potentiality and Actuality:**

These concepts are just as fundamental in the Physics as in the Metaphysics. Aristotle's definition of motion in the third book, which is at the very basis of his system, since *γένεσις* is a kind of motion, is directly based upon the concepts of *δύναμις* and *ἐνέργεια*. Thus III, 2, p. 202 b 7, *ἡ κίνησις ἐντελέχεια τοῦ κινητοῦ ᾗ κινητόν.*

§ 8. **P. 190 b 24 sq.:**

ὁ μὲν γὰρ ἄνθρωπος καὶ χρυσὸς καὶ ὅλως ἡ ὕλη ἀριθμητή· τόδε γάρ τι μᾶλλον.

Neumark confuses things when he imagines that in order to prove the impossibility of his translation one must adopt Bonitz's emendation. Not at all. The linguistic abjection to N.'s translation is that *τόδε τι* cannot be a subject, but must be a predicate of *ὑλη*, which is the subject. It is not true as Neumark says (p. 295) that i f we accept Bonitz's emendation, and o m i t the *γάρ*, *τόδε τι* is a predicate of *ὕλη*. Not at all. The word *γάρ* necessitates our taking *τόδε τι* as a predicate of *ὕλη*. *ὕλη* is *ἀριθμητή*, Aristotle says. Why is it *ἀριθμητή*, or rather how do you know it is *ἀριθμητή*? It is *ἀριθμητή* b e c a u s e (*γάρ*) it is more of a *τόδε τι* (than *στέρησις*). According to Neumark's translation *γάρ* has no meaning at all. He seems to render it by the word "aber", but I never heard that *γάρ* means "aber". The entire discussion in Neumark, p. 294, about Bonitz's motives in emending the text is therefore not relevant, and we can pass it by. If the grammatical construction is as I say it is, then there is no contrast between *ὕλη* and *τόδε τι*, and as *ὕλη* does not mean Neumark's metaxü, his entire discussion in his book has the bottom knocked out of it. *ὕλη* is here said to be more of a *τόδε τι* than *στέρησις*. Elsewhere Aristotle says that *ὕλη* is not a *τόδε τι*. The contradiction is no worse than a great many others in Aristotle, and can be easily reconciled. Here he says of *ὕλη* that it is more of a *τόδε τι* than *στέρησις*, because in comparison with *στέρησις*, which is an absolute negation, *οὐδαμῶς οὐσία*, *ὕλη* is more positive, and partakes more of the *τόδε τι* character. In comparison, however, with the form, or the concrete, the real *τόδε τι*, *ὕλη* is not a *τόδε τι*.

Now let us consult the authorities. Simplicius, p. 217, expounds the passage as follows: *τὴν κοινωνίαν πάλιν ἐνταῦθα τῆς τε ὕλης καὶ τῆς στερήσεως καὶ τὴν διαφορὰν αὐτῶν παραδίδωσι. καθόσον μὲν γὰρ σὺν τῇ ὕλῃ καὶ ἡ στέρησίς ἐστι, πρὶν ἐπιγένηται τὸ εἶδος, καὶ σὺν αὐτῇ θεωρεῖται ὡς ὑποκείμενον, κατὰ τοσοῦτον ἓν τῷ ἀριθμῷ ἐστι τὸ ὑποκείμενον τὸ ἐξ ὕλης καὶ στερήσεως· καθόσον δὲ ἡ μὲν ὕλη ὑπομένει οἷον ὁ ἄνθρωπος ἢ ὁ χρυσὸς ἐν τῇ μεταπλάσει τῶν χρυσῶν σκευῶν καὶ ὑπὸ δεῖξιν πίπτει καὶ τόδε τι λέγεται . . . ἐνυπαρχούσης ἀεὶ τῷ συνθέτῳ καθ' αὑτὸ τῆς ὕλης, κατὰ τοῦτο καὶ ἀριθμητή ἐστιν αὐτή. τὸ γὰρ καθ' αὑτὸ ὑφεστὸς καὶ ὑπὸ δεῖξιν πίπτον ἀριθμητὸν κυρίως. καὶ ὁ μὲν ἄνθρωπος καὶ ὁ χρυσός, τὰ ἄτομα, ἅπερ καὶ ὑποκείμενά ἐστιν, ἁπλῶς ἀριθμητά· καὶ τόδε τι ἕκαστον αὐτῶν. ἐπειδὴ δὲ προσέθηκε τούτοις καὶ ὅλως ἡ ὕλη, ἡ δὲ πρώτη ὕλη οὐκέτι ὁμοίως τῷ ἀνθρώπῳ ἀριθμητὴ καὶ τόδε, ἐπεὶ μηδὲ δύναται χωρὶς εἴδους ὑπὸ δεῖξιν πίπτειν, διὰ τοῦτο προσέθηκε τῷ τόδε γάρ τι τὸ μᾶλλον. οὐ γὰρ ἁπλῶς ἡ ὕλη τόδε, ἀλλὰ καθόσον συνεργεῖ τῷ συναμφοτέρῳ πρὸς τὸ εἶναι αὐτὸ τόδε τι οἷον γενητὸν καὶ αἰσθητόν, ὑπομένουσά τε καὶ σωζομένη ἐν αὐτῷ.*

It is quite clear that Simplicius, without adopting Bonitz's emendation, understands *τόδε τι* as a predicate of *ὕλη*, and moreover understands *ὕλη* as *πρώτη ὕλη*. He also makes it clear that in this passage Aristotle is engaged in explaining in what respect *ὕλη* and *στέρησις* are alike, and in what respect they are different.

I might quote Philoponus (p. 163—164), and Themistius (p. 28, 20—26), but there is really no need, the reader will take my word for it that the last two agree with Simplicius in understanding the passage in the only admissible way.

§ 9. **191 a 7:** —

ἡ δ' ὑποκειμένη φύσις ἐπιστητὴ κατ' ἀναλογίαν κτλ.

This passage I explained with the utmost clearness in my criticism, p. 445—446. If Neumark is not yet convinced, he may be after reflection. His discussion, pp. 295—304 of his reply, is too sad a piece of writing to deserve refutation or comment. There is only one or two remarks I wish to make. I wish to beg Neumark's pardon if I attributed to him unjustly a reading *μία δὲ ᾗ ὁ λόγῳ*. I cannot now remember how it happened. The other remark I wish

to make is that the *ἀναλογία* is just what I said it was. It ends with the words *καὶ τὸ τόδε τι καὶ τὸ ὄν*. What follows is an enumeration of the other two elements in *γένεσις*, viz. *εἶδος* and *στέρησις*, though there is also a statement comparing *ὕλη* to the concrete, or *τόδε τι*, in respect to the character of oneness. The important matter is that *ὕλη* here more than anywhere else means *πρώτη ὕλη*, absolutely free from form. This is the view of Bonitz, and above all, this is the view of the Greek commentators, Simplicius, Philoponus, Themistius.

Philoponus expresses himself almost word for word as I did, though I do not recall having read Philoponus when I wrote my criticism. I did read Simplicius.

These are the words of Philoponus (p. 162): — *ταῦτα εἰπών, ἐφεξῆς τὸν τρόπον καθ' ὃν ἐπιβάλλειν δυνατὸν τῇ γνώσει τῆς ὑλης ὑποτίθεται. ἰστέον δ'ὅτι πρὸ αὐτοῦ ὁ Πλάτων δύο τρόπους φησὶν εἶναι καθ' οὓς δυνατὸν εἰς τὴν τῆς ὕλης γνῶσιν ἐλθεῖν· ἕνα μὲν τὸν ἐξ ἀφαιρέσεως . . . εἷς μὲν οὖν τρόπος τῆς γνώσεως τῆς ὕλης οὗτος, δεύτερος δ' ὁ κατὰ ἀναλογίαν, ᾧ καὶ Ἀριστοτέλης νῦν ἐχρήσατο, ὅτι ὃν λόγον ἔχει ὁ χαλκὸς πρὸς πάντα τὰ χαλκᾶ σκεύη καὶ τὰ ξύλα πρὸς πάντα τὰ ξύλινα σκεύη, τὸν αυτὸν λόγον ἔχει καὶ ἡ ὕλη πρὸς πάντα τὰ ὄντα· ὅνπερ γὰρ τρόπον τυφλῷ εἰ βουληθείημεν ὑπογράψαι τίς ἡ ξύλου φύσις, ἤγομεν ἂν αὐτὸν εἰς τὴν τοῦ ξύλου ἔννοιαν φάσκοντες ὅτι ἐκεῖνό ἐστι ξύλον, ὃ οὔτε κλίνη ἐστὶν οὔτε θύρα οὔτε ἀβάκιον οὔτε ἕτερόν τι τῶν ξυλίνων σκευῶν, ἀλλ' ὃ πᾶσι τούτοις ὑποβέβληται καὶ αὐτὸ μηδὲν ἔχον ἐν τῇ οὐσίᾳ τῶν τοιούτων εἶδός τι πεφυκε πάντα δέχεσθαι, τὸν αὐτὸν τρόπον ἀναχθησόμεθα καὶ εἰς τὴν τῆς ὕλης ἔννοιαν λέγοντες μηδεμίαν εἶναι αὐτὴν τῶν φυσικῶν εἰδῶν, ὃ πᾶσι δὲ τούτοις ὑποβέβληται καὶ ὑπέστρωται, τοῦτο εἶναι την ὕλην.*

It is clear from the above that Philoponus understands by *ὕλη* here absolutely formless *ὕλη*, and the purpose of the *ἀναλογία* is to show not that *ὕλη* is already possessed of form as *χρυσός* and *ξύλον* are, but that as *χρυσός* and *ξύλον* are not yet *δακτύλιον* or *κλίνη*, so *ὕλη* is not yet any thing, neither *οὐσία* nor *ὄν*. This is the point in dispute, and Neumark gained nothing by confusing it with other things. The fact is no one, who was not like Neumark, committed to the *μεταξύ* figment, which he must

by hook or crook read into Aristotle, would have dreamt of taking the passage in any other way. The other captious objections of Neumark in reference to this passage do not deserve discussion. Any intelligent reader can answer them.

§ 10. *ἀναλογία:* —

Neumark has a great deal to say (pp. 300—302) about "Analogieschluß", but that too is irrelevant, for we are here concerned not with "Analogieschluß", but with *ἀναλογία*. Now *ἀναλογία* is not strictly speaking a logical term at all. It is sufficient proof of this that the Organon of Aristotle has no discussion of *ἀναλογία*. *ἀναλογία* is primarily a mathematical term, a proportion.

$$a : b = c : d$$

is an *ἀναλογία*. It is an equality of ratios, *ἰσότης λόγων* (cf. Nik. Eth. E, 5 p. 1131 a 31, *ἡ γὰρ ἀναλογία ἰσότης ἐστὶ λόγων . . . ὡς ὁ α . . . πρὸς τὸν β, οὕτως ὁ γ πρὸς τὸν δ).* The form of *ἀναλογία* may, however, be transferred from mathematics to any other field of thought, and the ratios become relations, quantity changes to quality (cf. De Gen. et Cor. B 6, p. 333 a 29, *τὸ δ' ὡς τόδε σημαίνει ἐν μὲν ποιῷ τὸ ὅμοιον, ἐν δὲ ποσῷ τὸ ἴσον)* and equality to similarity. We may say then: *ὡς πρὸς ἀνδριάντα χαλκὸς οὕτως ἡ ὕλη πρὸς οὐσίαν.*

Now what is the logical value of a proportion or *ἀναλογία*? Is it an argument? No, not at all. It is not a syllogism, either deductive or inductive. It has no demonstrative value. It is merely a statement of a fact like, "a is b". In other words it is a proposition, which may be used as a premise in a syllogism, but is not itself a syllogism or argument at all. It may be true or false just as any proposition may be true or false. It consists of a subject and a predicate just as any proposition consists of a subject and a predicate. In the proposition $a : b = c : d$ the first ratio is the subject, the second ratio the predicate. It may be rendered in words, "the relation of a to b is the relation of c to d", where the subject and predicate are evident. If I say, $4 : 8 = 3 : 6$, I have a true analogical proposition, *πρότασις κατ' ἀναλογίαν;* if I say $4 : 8 = 5 : 7$, I have a false analogical proposition. *ἀναλογία* carries therefore in itself no more truth or falsehood than any pro-

position. It needs proof like a proposition. Now the question arises, of what use is it, and where do we use it in preference to a simple proposition? The answer to this would be in part, when we are dealing with primary notions, which do not come under a higher class, the *ἀναλογία* takes the place of a definition. In order to define a thing we must give its genus and difference in the form of a proposition, a *λόγος*, *ἄνθρωπος* is *ζῷον δίπουν*. Primary notions have no genus, how can we define them? Answer. We cannot define them, we can only point to their nature indirectly by means of comparison with other things. We cannot define matter, but we can indicate its nature by means of a proportion, "as brass is to statue, so is matter to *οὐσία*". This is only a statement, it needs proof. Its meaning is that just as brass is not yet statue, but may be such, so matter is not yet *οὐσία*, but may be such. The proof of the *ἀναλογία* must come from elsewhere, and may be deductive or inductive, as far as the *ἀναλογία* itself is concerned. All *ἀναλογίαι* in mathematics are proved deductively. But when you have to do with a concept like matter the probabilities are that there is no deductive proof for the *ἀναλογία*. In the present instance Aristotle's proof of the *ἀναλογία* is to be sought in the discussion preceding the formulation of the *ἀναλογία*. The formulation itself is a categorical statement. All this is well brought out in a passage in the Metaph. *Θ*, 6, p. 1048 a 32 sq. *λέγομεν δὲ δυνάμει οἷον ἐν τῷ ξύλῳ Ἑρμῆν καὶ ἐν τῇ ὅλῃ τὴν ἡμίσειαν, ὅτι ἀφαιρεθείη ἄν, καὶ ἐπιστήμονα καὶ τὸν μὴ θεωροῦντα, ἂν δυνατὸς ᾖ θεωρῆσαι ... δῆλον δ' ἐπὶ τῶν καθ' ἕκαστα τῇ ἐπαγωγῇ ὃ βουλόμεθα λέγειν, καὶ οὐ δεῖ παντὸς ὅρον ζητεῖν ἀλλὰ καὶ τὸ ἀνάλογον συνορᾶν, ὅτι ὡς τὸ οἰκοδομοῦν πρὸς τὸ οἰκοδομικόν, καὶ τὸ ἐγρηγορὸς πρὸς τὸ καθεῦδον, καὶ τὸ ὁρῶν πρὸς τὸ μύον μὲν ὄψιν δὲ ἔχον, καὶ τὸ ἀποκεκριμένον ἐκ τῆς ὕλης πρὸς τὴν ὕλην, καὶ τὸ ἀπειργασμένον πρὸς τὸ ἀνέργαστον. ταύτης δὲ τῆς διαφορᾶς θάτερον μόριον ἔστω ἡ ἐνέργεια ἀφωρισμένη, θατέρῳ δὲ τὸ δυνατόν.*

From this passage it is evident that the *ἀναλογία* is not an argument, but a roundabout way of explaining or describing or defining that which can not be defined directly. The reader will see that all which Neumark has to say about "Analogieschluß" is quite irrelevant to the Aristotelian *ἀναλογία*.

Simplicius, p. 225—226, makes it even clearer than Philoponus that ὕλη means here *πρώτη ὕλη*, and also that the *ἀναλογία* ends with *τὸ ὄν*. He also says distinctly that *πρὸς οὐσίαν καὶ τὸ ὄν* denotes here *τὴν σύνθετον καὶ κυρίως οὐσίαν. τὸ ὄν* denotes everything else, i. e. all the other nine categories beside *οὐσία*. He says, ib. 11, *καὶ αἱ μὲν οὐσίαι τοῖς ἄλλοις ὑπόκεινται, ἡ δὲ ὕλη τῇ οὐσίᾳ· διὸ καὶ τοῖς ἄλλοις ἅπασιν αὕτη. ἀλλὰ τῇ μὲν οὐσίᾳ καὶ τῷ συναμφοτέρῳ καθ' αὑτό, κατὰ συμβεβηκὸς δὲ καὶ τοῖς ἄλλοις ὑπόκειται.* again, 23, *μετὰ δὲ τὸ τόδε τι ἐπήγαγε καὶ τὸ ὄν, τουτέστι πρὸς πάντα τὰ ὄντα, ὧν τὰ μὲν οὐσίαι εἰσί, τὰ δὲ συμβεβηκότα, καὶ τὰ μὲν τόδε τι προηγουμένως, τὰ δὲ δι' ἐκεῖνο τὸ τόδε τι.*

I did not say that *οὐσία* and *τόδε τι* and *ὄν* are all synonyms for the concrete. I merely indicated that they all occupy the same place in the *ἀναλογία* or proportion, namely the consequent in the second ratio. That they are completely synonymous I did not say. I did not at all discuss the relation of the terms to each other. I was interested only in showing clearly the nature and import of the *ἀναλογία*, which Neumark confused. For he is again merely throwing dust when he gives vent to his misplaced irony about translation and paraphrase. That is not at all the question. He can call his rendering anything he pleases, the important thing is to make Aristotle say what he intends to say and not the opposite. I agree with Neumark that his rendering is not a translation, I go further than he, I don't even call it a paraphrase, I characterised it properly on p. 448, when I called his renderings, "misinterpretations", "mistranslations", and "blunders", and I was not at all ironical, I meant it in all seriousness, and I proved it.

If we have to discuss the precise meaning of the three terms used here, *οὐσία, τόδε τι,* and *ὄν*, there is no reason why we cannot understand them as Simplicius does, namely that *τόδε τι* is added to *οὐσία* epexegetically to indicate that by *οὐσία* is meant here the concrete *οὐσία*, as in the Categories, and by *ὄν* is meant everything else which is predicated of *οὐσία*, namely *γένος, εἶδος*, and the nine categories of *συμβεβηκότα*. Cf. Categ. ch. 5, p. 2 b 4, *ὥστε τὰ ἄλλα πάντα ἤτοι καθ' ὑποκειμένων λέγεται τῶν πρώτων οὐσιῶν ἢ ἐν ὑποκειμέναις αὐταῖς ἐστιν.*

That ὄν never applies to the concrete is not true. Aristotle says, De Anima III, 8, p. 431 b 22, ἢ γὰρ αἰσθητὰ τὰ ὄντα ἢ νοητά. What are αἰσθητὰ ὄντα except concrete objects? But really this question does not concern us now. The contradictions which Neumark finds (pp. 301—302) in my interpretation of Aristotle in this passage are purely specious. Aristotle says that the πρώτη ὕλη is not yet any definite οὐσία, just as brass is not yet a statue. But whether ὕλη can be called in itself οὐσία, whether it has any kind of existence in itself, is not yet clear. Similarly ὕλη when compared with a real τόδε τι is not a τόδε τι, and yet when compared with στέρησις, we may call it more of a τόδε τι than the latter, for ὕλη at least contributes materially to the product (ἐνυπάρχει), whereas στέρησις does not. Its contribution is its absence (οὐκ ἐνυπάρχει). If this is a contradiction, then Aristotle contradicts himself, but the fault is not mine. All the commentators agree on this point. Simplicius says distinctly, p. 226, 15, οὐδέπω ἡ ὕλη τόδε τι, εἰ καὶ μᾶλλον τῆς στερήσεως. Neumark says of me (p. 302), "Hier sagt er zuversichtlich: the ὕλη is not called οὐσία, nor τόδε τι, oben aber (S. 454, s. Nr. 17) sagt er ebenso zuversichtlich nach Bonitz, It (τόδε τι) surely must be a predicate of ὕλη, ebenso weiter (S. 462, s. Nr. 25): and in general ὕλη ἡ ἀρρύθμιστος (following Bonitz) is more essentially the resulting τόδε τι (concrete thing) than the στέρησις. Die hyle ist also doch τόδε τι. "H. fällt über seine eigenen Beine!" We have just seen that Simplicius says the very thing deliberately which Neumark charges against me, the ὕλη, he says in the above passage, is not yet τόδε τι, though it is more so than στέρησις. We must therefore conclude with Neumark, Simplicius fällt über seine eigenen Beine!

The intelligent and fair minded reader will see that I am not contradicting either Bonitz or myself. I am only contradicting Neumark, because he misinterprets Aristotle, doing violence to his language as well as to his ideas. Bonitz and Simplicius and Philoponus and Themistius all understand Aristotle in the same way, the correct way, and I follow them in my interpretation.

When Neumark, pp. 304—307, informs the reader with much outrage and indignation that I never saw the first four chapters of the Physics, and proceeds to tell us what they contain, he is again

throwing dust, for it matters not whether I read those chapters or not. We were discussing chapter seven, and the only question is whether I am correct about my interpretation of the passages in dispute. Let me, however, assure Neumark that I read not only the first four chapters, but the entire eight books of the Physics, not in connection with his book to be sure, but that is neither here nor there. The question is, is Neumark's interpretation of chapter seven, or rather of certain passages in it, correct, or is mine? Let us see. In the first place my statement in my criticism (p. 453) reads as follows: "That the ancients denied the many irrespective of the question of Becoming, Aristotle does not say. In chapter eight he says distinctly that from denying on logical grounds the possibility of Becoming, they were led to exaggerate the consequences and jumped to the conclusion that there was no such thing as the many, and that there was only Being alone. He refutes their argument against Becoming, and thus the existence of the many is secured. But all this takes place in the eighth chapter, subsequent to the chapter we are now discussing. Here Aristotle is still engaged in discovering and establishing the ἀρχαί and their number. In chapter eight he operates with the ἀρχαί thus discovered, and refutes the arguments against Becoming."

To this Neumark answers first by denying that he ever said that "The ancients denied the many irrespective of the question of Becoming". To justify my implication let me quote from Neumark's book, p. 309: "Wir befinden uns also in einem Dilemma: Entweder gibt es keine Vielheit, also auch keine Möglichkeit des Werdens, oder....." Again, p. 311, "Die Annahme der Alten, es gebe überhaupt keine Vielheit, ist damit widerlegt. Diese Annahme hätte nur ihre Berechtigung, wenn.... Da aber nachgewiesen wurde, daß schon das Sein an sich, auch abgesehen vom Werden, als ein Doppelwesen sich kundgibt.... so kann die Vielheit der Dinge nicht mehr angezweifelt werden." Again, p. 312, "Die Vielheit der Dinge erscheint somit verbürgt, und damit auch die Wahrheit der Erkenntnis, daß das Werden... eine dem Seienden an sich zukommende Bestimmung ist."

Now was I correct in charging Neumark with an inversion of the order of the two questions, viz. the many, and the Problem of Becoming, respectively? Is it not clear from the passages quoted

that Neumark thinks the matter thus: "If we deny the many, there is no Becoming. We must therefore prove the many, and we can then also prove Becoming?" And that is exactly what I charged him with saying (pp. 452—454), and pointed out that Aristotle's argument is just the reverse. The ancients said there was no Becoming, hence they denied the many. Let us prove Becoming, then the many are saved. But I also pointed out another mistake of Neumark by saying that the motive and argument just stated, appear first in chapter eight, and we are now discussing chapter seven, which is not concerned with the *ἀπορία* of the ancients. It is simply an attempt to explain *γένεσις*, or rather to analyze the process of *γένεσις* for itself, irrespective of *ἀπορίαι*. The *ἀπορία* turns on the concepts *ὄν* and *μὴ ὄν*, and there is no mention made of this contrast in chapter seven at all. It is not even true to say that chapter seven is written, "im Zeichen der Fragen von der Möglichkeit des Werdens und der Vielheit", except in the sense that his analysis in chapter seven enables him to solve the *ἀπορία* in chapter eight. But this does not justify any one in introducing the *ἀπορία* into chapter seven, where it does not belong, and that too, in an inverted form. Now what does Neumark do to defend himself against this two-fold charge? He throws dust into the eyes of the reader and mud at his opponent. First of all he makes a flat denial, which I have just proved from his book he has no right to make. Then he tries to discredit me by showing the reader that I am not familiar with the contents of the first four chapters of the Physics, because I said (p. 453), "The question of the possibility of Becoming, and the consequent possibility of the existence of the many is not touched on till next chapter". Granted, I am not familiar with the first four chapters, and Aristotle in citing the views of his predecessors, as he is in the habit of doing, mentioned before the question of *ἓν καὶ πολλά* in connection with *γένεσις* (the particular *ἀπορία* is not mentioned before), does that change the matter any? Not at all. In chapter seven Aristotle analyses the process of *γένεσις* by showing how many *ἀρχαί* there are. And the upshot of the whole discussion is that in the true sense of the word there are only two, matter and form, in a modified and indirect sense there is a third, namely *στέρησις*.

§ 11. **Principle of Individuation and Definition: —**

The next question is, has chapter seven anything to do with the principle of individuation and the definition? I say no, and if Neumark says yes, he misunderstands the passages he quotes in support of his view.

Four times in this chapter Aristotle says that the *ὑποκείμενον* or the *ὕλη* is *ἀριθμῷ ἓν εἴδει δύο*. Is this concerned with the problem of definition? If Neumark will maintain that every passage in Aristotle in which the term *εἶδος* or *λόγος* occurs in the sense of definition deals with the problem of definition, I will admit that this also deals with the problem of definition, otherwise not. The four passages are

(1) 190 a 15, *καὶ τοῦτο εἰ καὶ ἀριθμῷ ἐστιν ἕν, ἀλλ' εἴδει γε οὐχ ἕν· τὸ γὰρ εἴδει λέγω καὶ λόγῳ ταὐτόν· οὐ γὰρ ταὐτὸν τὶ ἀνθρώπῳ καὶ τὸ ἀμούσῳ εἶναι.*

(2) ib. b 12, *και τοῦτο διττόν· ἢ γὰρ τὸ ὑποκείμενον ἢ τὸ ἀντικείμενον. λέγω δὲ ἀντικεῖσθαι τὸ ἄμουσον, ὑποκεῖσθαι δὲ τὸν ἄνθρωπον.*

(3) ib. b 23 sq. *ἐστι δὲ τὸ ὑποκείμενον ἀριθμῷ μὲν ἕν, εἴδει δὲ δύο.*

(4) 190 b 36—191 a 3, *[αἱ ἀρχαί] δύο ὡς εἰπεῖν τῷ ἀριθμῷ, οὐτ' αὖ παντελῶς δύο διὰ τὸ ἕτερον ὑπάρχειν τὸ εἶναι αὐτοῖς, ἀλλὰ τρεῖς· ἕτερον γὰρ τῷ ἀνθρώπῳ καὶ τῷ ἀμούσῳ τὸ εἶναι, καὶ τῷ ἀσχηματίστῳ καὶ χαλκῷ.*

These passages are not concerned with telling us whether a concrete thing as such is a unity or a duality, nor how it is to be defined, and what the character of a definition is, all these ideas are foreign to Aristotle in this chapter. He is here concerned with one thing, namely to justify such expressions as *ὁ ἄνθρωπος γίνεται μουσικός* and *ὁ ἄμουσος γίνεται μουσικός*, which seem incompatible, and also to indicate the function of *στέρησις* in the process of *γένεσις*. He says therefore that when we consider a given *ὕλη*, whether the purely formless, or the relative *ὕλη*, i. e. any *ὑποκείμενον* in a given stage of development, with reference to the next stage, and as underlying the next stage, then we can think of it under two aspects, we may think of that which really enters as a constituent element in the product, or we may

think of the *στέρησις* pertaining to it, which does not enter into the resulting product. He says nothing about the unity or duality of a concrete object as such, or of the manner of defining it. The fact is that when we define a given thing we do not say any thing about its *στέρησις*. We define a thing by saying what it is, not what it is not, and what is more important, we do not define it with reference to any succeeding step in its development.

Neumark quotes other statements in this chapter, viz.

(5) 190 b 20 sq. *σύγκειται γὰρ ὁ μουσικὸς ἄνθρωπος ἐξ ἀνθρώπου καὶ μουσικοῦ τρόπον τινά· διαλύσεις γὰρ τοὺς λόγους εἰς τοὺς λόγους τοὺς ἐκείνων.*

(6) ib. 28, *ἓν δὲ τὸ εἶδος.*

(7) 191 a 12 *οὐχ οὕτω μία οὖσα οὐδὲ οὕτως ἓν ὡς τὸ τόδε τι.*

(6) can I think be ruled out, since *ἓν* here does not mean that *εἶδος* is a unit in itself, but merely that it is one of the three principles.

(7) tells us that pure *ὕλη* taken by itself as an entity cannot even be called one, much less can it be called two, i. e. *ἀριθμῷ* it is an improper one, it can be called one only by courtesy. This is not in any contradiction with any of the above passages stating that the *ὕλη* or *ὑποκείμενον* is *εἴδει δύο*. In reality and objectively, relative *ὕλη* is a proper unity, pure *ὕλη* an improper unity. When viewed with reference to, and as underlying, the next stage of development, we may be thinking of either under its aspect of *στέρησις* also, hence the duality. I see no contradiction. According to Neumark's interpretation the same thing is called *λόγῳ* or *εἴδει* both one and two, hence a flat contradiction; according to the correct interpretation, it is called in one sense one, in another sense two. Neumark might therefore have spared pp. 307—312 in his reply, painfully trying to show that there is a contradiction according to all interpreters. There is no such thing. There is still (5), which Neumark regards as his pièce de résistance for the problem of definition. But surely the statement is very harmless. Aristotle says, everything is composed of matter and form (form here being used in a loose sense, as that which is added to the *ἐσχάτη ὕλη*, including accidents), and gives as an example, *ἄνθρωπος μουσικός*.

Before he became μουσικὸς, he was ἄμουσος, hence ἄνθρωπος ἄμουσος was the matter, and μουσικός is the form which replaced the στέρησις, ἄμουσος. μουσικὸς ἄνθρωπος is therefore made up of matter and form, ἄνθρωπος and μουσικός. It is not made up physically of these two, but conceptually, as every composition of matter and form is conceptual, and this can be shown by the fact that any description of μουσικὸς ἄνθρωπος can be divided into two parts, one part being a description of ἄνθρωπος, and the other of μουσικός. I fail to see any significance in this statement. Any body might say this without committing himself to any point of view about the problem of definition, and Aristotle would say the same thing in the Metaphysics if he had an opportunity, for he is not thereby saying anything about the nature of true definition.

The same applies to the principle of individuation. I did not consider it my duty to tell Neumark or any one else where Aristotle discusses the principle of individuation, or whether he discusses it at all. I was not writing a treatise on Aristotle. The only question is whether in chapter seven of the first book of the Physics Aristotle discusses this principle, and whether therefore it is legitimate to bring in this question in the exegesis of certain passages in it.

As I understand it the principle of individuation is concerned with the question, what is it that makes different individuals of the same kind. If they are alike, man for example, why are they not all one man? What is it whereby they are all men and yet form different individuals? Is it the matter in them or the form in them that is responsible for their individual distinctness? Now I cannot see that chapter seven of the first book of the Physics gives any solution of the question, or even raises it. All we find in this chapter is, that in the process of becoming there are two real principles or elements, matter and form, that therefore every product of γένεσις is composed of these two. We also learn that if we station ourselves at a point immediately prior to the coming into being of a given product, and consider the ὑποκείμενον as tending to the product in question, we may also recognize a third principle, namely στέρησις, the absence of the form which is to come. This στέρησις disappears the moment the form in question comes upon the scene. There is absolutely nothing else in this chapter. We have not been told wherein the essence of a thing consists, whether in its matter or in

its form, we know next to nothing about the nature of form and the different kinds of form, essential, accidental, general, special, individual. We know absolutely nothing about these all-important questions, how then can we begin to touch the problem of individuation? Neumark alone knows. For neither Zeller, nor Baeumker (Das Problem der Materie in der Griechischen Philosophie pp. 281—291) in discussing this question makes any mention of the chapter in question.

§ 12. **Met. E 1, 1025 b 27—8: —**

Θεωρητικὴ περὶ τοιοῦτον ὂν ὅ ἐστι δυνατὸν κινεῖσθαι καὶ περὶ οὐσίαν τὴν κατὰ τὸν λόγον ὡς ἐπὶ τὸ πολύ, οὐ χωριστὴν μόνον.

I objected to Neumark's translation of *περὶ οὐσίαν τὴν κατὰ τὸν λόγον*, "das Wahrhaft-Seiende, aber meist nur dem Begriffe nach", saying that *οὐσία κατὰ τὸν λόγον* is the real *οὐσία*, the form, and the qualification is in the words *οὐ χωριστὴν μόνον*. Neumark obscures the issue by quoting Physics II, 1 p. 193 b 3 sq. *ὥστε ἄλλον τρόπον ἡ φύσις ἂν εἴη τῶν ἐχόντων ἐν αὑτοῖς κινήσεως ἀρχὴν ἡ μορφὴ καὶ τὸ εἶδος, οὐ χωριστὸν ὂν ἀλλ' ἢ κατὰ τὸν λόγον*, as if *οὐσία κατὰ τὸν λόγον* has the same meaning as *χωριστὸν κατὰ τὸν λόγον*. It is proper to say a thing is *χωριστόν* only *κατὰ τὸν λόγον*, i. e. not in reality, *ἐνεργείᾳ*, *ὑποστάσει*, *τόπῳ*, *ἀριθμῷ*, etc., but it is not proper to say *οὐσία* which is only *κατὰ τὸν λόγον*, because *οὐσία κατὰ τὸν λόγον* is the highest *οὐσία*. Bonitz renders the passage correctly when he says, p. 282 of his commentary, "Cognoscit enim res sensibiles per formam quidem, *κατὰ τὸν λόγον*, sed per eam formam, quae sine materia esse nequeat." "Quidem" is the very opposite of "nur". It means rather "zwar".

§ 13. On page 318 Neumark finds fault with me for not having gone into a discussion of Met. H. 3, p. 1043 b 13—23, where all his views are confirmed. I was afraid of this passage, he intimates, and so went straight to chapter five, which I thought I understood. I do not begrudge him any of the comfort it gave him to think I was so fearful of the harmless passage in question, and if for one reason or another, or for no reason probably other than the desire for brevity, I omitted to deal with it in my criticism, I am ready to do so now.

The two points which Neumark finds confirmed in this passage are (1) Form as motive of Becoming, and (2) Separability of the Form. Now as to the first I have already explained in what sense I understand the phrase motive of Becoming, in the sense that it applies strictly only to the efficient cause, which comes from without, and is neither the matter, nor its στέρησις, nor the form of the thing produced. It is a form to be sure, and in this sense, it is true, form is the motive of Becoming, but, and this is the point, this view is not peculiar to the Metaphysics, for Aristotle never denied in the Physics that the efficient cause is one of the four causes, and the identification of the efficient and formal causes is also found in the Physics. So that even if this passage did tell us that the form is the motive of Becoming, we could not draw from it the conclusion that it is a new point of view. But I fail to see that this is the case. Neumark builds evidently on the lines (13—14), εἰ οὖν τοῦτ' αἴτιον τοῦ εἶναι καὶ οὐσίας, τοῦτο αὐτὴν ἂν τὴν οὐσίαν λέγοιεν. Neumark renders it (p. 352 of his book), "Ist dies aber die Ursache des [So-] Seins und [des Werdens] der sinnlichen Substanz, dann sagt man eben: Es ist die Substanz". So rendered the lines teach that form is the motive of Becoming, but the reader will notice that the important word "Werden", which is the very matter in dispute, is supplied by Neumark. The term γένεσις Aristotle does not use, and there is no question here of the motives of γένεσις at all. Aristotle is not asking here what it is that brings matter and form together. He wants to know here what it is that constitutes the reality of the thing, matter, or form. His answer is, that is the reality of the thing, which is the cause of the thing's being what it is. The bricks do not make the house, it is the form that makes what we mean by house. Similarly it is not flesh and bones that make man, it is the form that constitutes what we mean by the concept man. This is quite a different thing from the motive of becoming. What makes the bricks assume the form of a house? What makes the seed and the καταμήνια assume the form of a man? These are questions concerning the motives of becoming, and the answer to these in the Physics and Metaphysics alike would be, the efficient cause: the builder, the building art in the first case, man in the second. If these are forms, and Aristotle says they are, then both in the Physics and Metaphysics form is the motive of becoming.

In the present passage this is not the question. Accordingly Bonitz renders it, p. 368, "Atque hac forma quoniam efficitur, ut res quaelibet id sit quod est, iure eam substantiam rei dixeris". Ut res id sit quod est is not the same as ut res gignatur.

It is only fair, however, to say that Alexander renders the passage, *τὸ εἶδός ἐστι τὸ αἴτιον τὸ κινοῦν τὴν ὕλην καὶ ποιοῦν ὅπερ ἐστί*. I prefer Bonitz's interpretation for the reasons given above. Alexander, too, adds *ὡς πολλάκις δέδεικται*, indicating that Aristotle is not saying anything new. Alexander is probably thinking of form in general, though the context calls for the special form of a given thing.

The second point, viz. the separability of form, we can dispose of more quickly, simply by denying that there is any such statement in the passage. Aristotle says, l. 18, *εἰ δ' εἰσὶ τῶν φθαρτῶν αἱ οὐσίαι χωρισταί, οὐθέν πω δῆλον· πλὴν ὅτι γ' ἐνίων οὐκ ἐνδέχεται δῆλον, ὅσα μὴ οἷόν τε παρὰ τὰ τινὰ εἶναι, οἷον οἰκίαν ἢ σκεῦος. ἴσως μὲν οὖν οὐδ' οὐσίαι εἰσὶν οὐτ' αὐτὰ ταῦτα οὔτε τι τῶν ἄλλων ὅσα μὴ φύσει συνέστηκεν· τὴν γὰρ φύσιν μόνην ἄν τις θείη τὴν ἐν τοῖς φθαρτοῖς οὐσίαν*. It is clear that Aristotle says, the question of separability of forms is not yet settled, except in so far as artificial things are concerned, where the negative is clear without further discussion. We cannot however argue from artificial *οὐσίαι* to natural *οὐσίαι*, for it is doubtful whether the former are *οὐσίαι* at all. The matter is thus left quite open. But Neumark must read into it separability of form. How does he do it? Let us see. These are his words (p. 352): "Es ist aber nicht klar, ob die [Form-] Substanzen der sinnlichen Dinge vom Stoffe abtrennbar sind, oder nicht. Es sei denn bei den Kunstdingen, wie Haus und dergleichen, von denen es klar ist, daß ihre Formen nicht abtrennbar sind. Das ist aber wohl darauf zurückzuführen, daß nur Naturdinge als Substanzen zu betrachten sind. [Die Formen der Naturdinge sind somit abtrennbar und ewig, und darin eben besteht ihre Würde als Substanz...]." The bracketed conclusion is Neumark's. Does he expect us to take it for Aristotle's own? The reader will agree with me that there was really nothing in this passage to frighten me, and Neumark's proofs are not yet forthcoming.

Having done our duty by the passage upon which Neumark lays so much stress, we may now with his permission proceed to chapter five.

§ 14. My objections to Neumark's interpretation are in general two. First, he cannot get his ideas out of the passage without supplying unwarranted ellipses. Second, Aristotle asks two *ἀπορίαι*, not one. In the first the question is whether *σῶμα* is *δυνάμει* both *ὑγιεινόν* and *νοσῶδες*, or whether *ὕδωρ* is *δυνάμει* both *οἶνος* and *ὄξος*, or not. In the second he uses different terms. It is no longer a question whether *ὕδωρ* is *δυνάμει* both *οἶνος* and *ὄξος*, but whether *οἶνος* is *δυνάμει ὄξος*, and *ζῶν* is *δυνάμει νεκρός*. Neumark runs the two *ἀπορίαι* into one. This cannot be, for in that case Aristotle would have kept to his old terms. Moreover, whereas the first *ἀπορία* is put in a non-committal form, not suggesting either an affirmative or a negative answer, *ἆρα ἄμφω δυνάμει;* (the answer in the sequel is affirmative), the second *ἀπορία* is put in a form suggesting the answer no, *διὰ τί ὁ οἶνος οὐχ ὕλη τοῦ ὄξους οὐδὲ δυνάμει ὄξος*. He takes it for granted that *οἶνος* is n o t *ὕλη τοῦ ὄξους* nor *δυνάμει ὄξος*, and asks for the reason, hence *ἢ οὔ* is the answer to the question. The question is, why is not *οἶνος ὕλη* of *ὄξος*? The answer is, it is not, because, etc. Further objections are, that whereas the second *ἀπορία* is concerned with *οἶνος* as *ὕλη* of *ὄξος* and *ζῶν* as *ὕλη* of *νεκρός*, the s o l u t i o n of the *ἀπορία*, according to Neumark's interpretation, who makes it affirmative, says nothing about *ζῶν*, but about *τοῦ ζῴου ὕλη*, and similarly nothing about *οἶνος*, but about *ὕδωρ*. Is Aristotle so confused that he begings with *ὕδωρ* in the first *ἀπορία*, continues with *οἶνος* in the second, and ends up with *ὕδωρ* again? And are *ζῶν* and *ᾧ ζῴου ὕλη* the same? Is not the confusion rather Neumark's? I believe the latter, and the reader will do the same when I have finished. My interpretation, as given on pp. 459—460 of my criticism, is not liable to these objections. But Neumark finds other objections to my interpretation, he finds it, "teils ganz unverständlich teils unrichtig". First of all he wants to know what these *ἀπορίαι* have to do with the rest of the book? This can be easily answered. Chapters four and five deal with the material principle, and these *ἀπορίαι* are intended to clarify the notion of *ὕλη*, and in what senses it

is to be understood. He had just said that ὕλη is found where there are contraries, οὐδὲ παντὸς ὕλη ἐστὶν ἀλλ' ὅσων γένεσίς ἐστι καὶ μεταβολὴ εἰς ἄλληλα. Now he wants to know what relation matter bears to the ἐναντία. Neumark is further impatient with my use of the word "say", Aristotle says nothing about saying. But neither does Aristotle say anything about "auffassen", "warum soll ich den Wein nicht... auffassen können?" Neumark might have taken my "saying" as being used in the same sense as his "auffassen", since words are supposed to correspond to concepts, and concepts to things. Surely Aristotle thinks so, cf. De Interpretatione 1, p. 16 a 3, ἔστι μὲν οὖν τὰ ἐν τῇ φωνῇ τῶν ἐν τῇ ψυχῇ παθημάτων σύμβολα, but Neumark's motto is "no quarter". An objection, no matter how captious and unessential, is grist to his mill, which grinds dust and mud, dust for the reader's eyes, and mud for the opponent. Further, παρὰ φύσιν is surely at least as justifiable a name for φθορά in this chapter according to my interpretation, as according to Neumark's. Nature aims at realization and perfection, hence φθορά, or dissolution is contrary to the aim of nature. That Aristotle believes there is a cycle in nature, and that φθορά is not ultimate except for the particular thing, but in general out of the elements of a given φθορά another γένεσις takes place, I never denied, hence the other objections which imply my denial of this opinion fall to the ground. De Generatione et Corruptione I, 3, p. 318 a 23 makes this quite clear, διὰ τὸ τὴν τοῦδε φθορὰν ἄλλου εἶναι γένεσιν, καὶ τὴν τοῦδε γένεσιν ἄλλου εἶναι φθορὰν ἄπαυστον ἀναγκαῖον εἶναι τὴν μεταβολήν. The question is whether in this particular passage Aristotle is engaged in proving that φθορά is not really παρὰ φύσιν ("Das bedeutet nichts Widernatürliches im eigentlichen Sinne des Wortes"), though he has just called it παρὰ φύσιν without any qualification. This I deny. Another objection of Neumark is the plural of φθορά, ἀλλὰ κατὰ συμβεβηκὸς αἱ φθοραί. The plural has reference to the two cases of οἶνος changing into ὄξος and ζῶν into νεκρός. Another objection of Neumark is (p. 321), "man sagt nicht: die Nacht wird aus dem Tage. Wir sagen es in keiner mir bekannten Sprachen, und auch im Griechischen hat man das nicht gesagt". I do not know whether they did or they didn't, but I am not at all responsible in the matter. Aristotle says γίγνεται γὰρ ἐκ τούτων

ὥσπερ ἐξ ἡμέρας νύξ, so Aristotle does say it, and the question is, what does he mean by it, and of what does it serve as an example? I say it serves to illustrate that just as when *ἐξ ἡμέρας νύξ γίγνεται*, *ἡμέρα* is not the *ὕλη* of *νύξ*, but the *ὕλη* of *ἡμέρα* is also the *ὕλη* of *νύξ*, so when *ἐξ οἴνου γίγνεται ὄξος*, *ἐκ ζῶντος γίγνεται νεκρός*, *οἶνος* is not the *ὕλη* of *ὄξος*, *ζῶν* is not the *ὕλη* of *νεκρός*, but the *ὕλη* of *οἶνος*, namely water, is the *ὕλη* of *ὄξος*, the *ὕλη* of *ζῶν (ἡ τοῦ ζῴου ὕλη)*, namely flesh and bones, is the *ὕλη* of *νεκρός*. Neumark says no, this cannot be the meaning of the illustration, for, "wenn Aristoteles illustrieren wollte, wie die Hyle eines Positiven die Hyle des Negativen ist, so hätte er nicht einen Fall gewählt, in dem es gar keine Hyle gibt". But it is not true that there is no *ὕλη* in the change of day into night, and our proof is found in Aristotle Met. *Λ* 4, p. 1070 b 21, *ἐν χρώματι λευκόν, μέλαν, ἐπιφάνεια, φῶς, σκότος, ἀήρ· ἐκ δὲ τούτων ἡμέρα καὶ νύξ*. Aristotle is giving examples of the three *ἀρχαί*, viz. *ὕλη*, *εἶδος* and *στέρησις*. So *ἐπιφάνεια* is *ὕλη*, *λευκόν* is *εἶδος*, and *μέλαν* is *στέρησις*. Similarly *ἀήρ* is *ὕλη*, *φῶς* is *εἶδος*, *σκότος* is *στέρησις*, and from these *ἀρχαί* we get *ἡμέρα* and *νύξ*. Cf. Alexander a d l o c. p. 680, 35, who says *καὶ ἐκ μὲν ἀέρος καὶ φωτός, ἤτοι ἐξ ὕλης καὶ εἴδους, ἡμέρα, ἐκ δὲ ἀέρος καὶ σκότους, τουτέστιν ὕλης καὶ στερήσεως, νύξ*. *ἡμέρα* is therefore related to *νύξ* just as *οἶνος* is related to *ὄξος*, and *ζῶν* to *νεκρός*. The first member in every one of these three pairs is not the *ὕλη* of the second member, but it contains the *ὕλη* of the second member as its own *ὕλη*. The *ὕλη* in the first pair is *ἀήρ*, in the second it is *ὕδωρ*, in the third, Aristotle does not name it here, he calls it merely *ἡ τοῦ ζῴου ὕλη*. When Neumark adds, "H. schließt: but one is not the *ὕλη* of the other. Aristoteles wollte aber nach ihm gerade das Gegenteil illustrieren!" he shows that he did not understand me. I thought I made it perfectly clear that Aristotle's answer to the second *ἀπορία* is negative, *ἢ οὔ*, that is, that *οἶνος* is n o t *ὕλη* of *ὄξος*, nor is *ζῶν ὕλη* of *νεκρός*. I think it is my turn to say now, "man glaubt eine somnambulistische Rede zu hören". Neumark confuses the two *ἀπορίαι* and says that all *φθοραί* are *κατὰ συμβεβηκός*. Aristotle keeps the two *ἀπορίαι* distinct, and tells us that in the examples of the second *ἀπορία* o n l y are the *φθοραὶ κατὰ συμβεβηκός*, as I explained in my criticism, p. 460,

"The wine becomes vinegar only so far as *συμβέβηκε τῷ οἴνῳ ὕλην τὸ ὕδωρ ἔχειν*. Similarly the living becomes dead *κατὰ συμβεβηκός, ὅτι συμβέβηκε τῷ ζῶντι ὕλην ἔχειν, ἡ νεκρὸν γίγνεται.*" We may also add, day becomes night *κατὰ συμβεβηκός, ὅτι συμβέβηκε τῇ ἡμέρᾳ ὕλην τὸν ἀέρα ἔχειν, ὃς νὺξ γίγνεται.* But the *φθοραί* in the examples of the first *ἀπορία* are not *κατὰ συμβεβηκός. σῶμα* becomes *νοσᾶδες κατὰ φθοράν*, but not *κατὰ συμβεβηκός*, similarly *ὕδωρ* becomes *ὄξος κατὰ φθορόν*, but not *κατὰ συμβεβηκός*. Let us hope that Neumark has the matter clear now. The objection marked 4 falls of itself after the above explanation of the parallelism between *ἡμέρα-νύξ* and *οἶνος-ὄξος*.

The concluding passage, *καὶ ὅσα δὴ οὕτω μεταβάλλει εἰς ἄλληλα εἰς τὴν ὕλην δεῖ ἐπανελθεῖν κτλ.* is a further confirmation of the fact that the *φθοραί* in the second *ἀπορία* are different from the *φθοραί* in the first. The *οὕτω* in 1045 a 3 has reference to the *φθοραί* of the second *ἀπορία*, i. e. the *φθοραί κατὰ συμβεβηκός*. In all such cases, Aristotle says, the change from the *φθορά* back to *γένεσις* cannot take place as it would in the *φθοραί* of the first *ἀπορία*, i. e. in *φθορὰ καθ' αὑτό*, in one step, but in at least two steps. It must first change to the common *ὕλη*, and then to the original substance. The idea is this, when water changes into vinegar the *φθορά* is not *κατὰ συμβεβηκός*, i. e. water is the immediate *ὕλη* of vinegar, and hence vinegar can change back to water in one step; wine is not the immediate *ὕλη* of vinegar, hence when vinegar changes back into wine it must do so through the intermediate stage of water. This is what I understand Aristotle to mean. To this latter portion too Neumark has objections, six in all. His first, that *καί* does not introduce a proof, is not serious. It is not a strict proof and nothing more, it is a new fact, which at the same time confirms a previous distinction. The second and fifth are answered by the above explanation. The third was answered before, and so were the fourth and sixth, which would be in point only if I denied what Aristotle says clearly in the De Generatione et Corruptione, that the *φθορά* of one thing is the *γένεσις* of another, and also that generation is in the form of a circle, Phys. IV 4, p. 223 b 23 sq. *κύκλον εἶναι τὰ ἀνθρώπινα πράγματα κτλ.*, and the generally admitted fact that death means dissolution into the elements, which then become

the elements of new formations. But I never dreamed of denying this.

I have now made clear on objective grounds why Neumark's interpretation is impossible. Now let us see on whose side the commentators are. Let us take Alexander as a good specimen of the ancient commentators, and Bonitz of the modern. I have not Schwegler by me at this moment. Following are the words of Alexander (p. 559, 38): *ἀπορία δέ τις ἐστι καὶ διὰ τί ὁ οἶνος οὐχ ὕλη τοῦ ὄξους. καὶ ἄλλην τινὰ ἀπορίαν ἐκτίθεται λέγουσαν διὰ τί οὐχ ὁ οἶνος ὕλη ἐστὶ τοῦ ὄξους καὶ ἔστι δυνάμει ὄξος ὁ οἶνος (γίνεται γὰρ ἐξ οἴνου ὄξος), καὶ ὁ ζῶν δὲ διὰ τί οὐκ ἔστι δυνάμει νεκρός, καὶ ἔστιν ὕλη ὁ ζῶν τοῦ νεκροῦ; καὶ λύει λέγων ἢ οὔ, ἀλλὰ κατὰ συμβεβηκὸς αἱ φθοραί. καὶ εἴη ἂν λέγων ὅτι οὐτε ὁ οἶνος ὕλη ἐστὶ τοῦ ὄξους οὐθ' ὁ ζῶν τοῦ νεκροῦ, ἀλλὰ κατὰ συμβεβηκὸς αἱ φθοραί (λέγων φθορὰς τὰ χείρονα εἴδη, ἃ τῆς πρὸς αὐτὰ ὁδοῦ ὕλην ἔχουσι τὰ κρείττονα τῶν εἰδῶν) . ἡ γὰρ τοῦ ζῴου ὕλη κατὰ φθορὰν καὶ στέρησίν ἐστιν ὕλη καὶ δύναμις τοῦ νεκροῦ, ἀλλ' οὐχὶ τὸ ζῷον. τοῦ λέγεσθαι γὰρ ὕλην τὸ ζῷον τοῦ νεκροῦ αἰτία ἐστιν ἡ ἐν αὐτῷ ὕλη. ἐπεὶ γὰρ ἡ τοῦ ζῴου ὕλη δύναται καὶ νεκροῦ γενέσθαι ὕλη, διὰ τοῦτο λέγεται τὸ ζῷον κατὰ συμβεβηκὸς ὕλη τοῦ νεκροῦ. ὡσαύτως δὲ καὶ ἐπὶ τοῦ οἴνου · διότι γὰρ τὸ ὕδωρ, ὅπερ ἐστιν ὕλη τοῦ οἴνου, δύναται καὶ τοῦ ὄξους εἶναι ὕλη, λέγομεν κατὰ συμβεβηκὸς τὸν οἶνον ὕλην τοῦ ὄξους. ὥσπερ γὰρ ἐξ ἡμέρας νὺξ γίνεται καὶ οὐ δήπου ἐστὶν ἡ ἡμέρα ὕλη τῆς νυκτός, οὕτω καὶ ἐκ ζῴου νεκρὸς καὶ ἐξ οἴνου ὄξος. εἰ δέ, φησιν, ἐκ νεκροῦ δεῖ ζῷον γενέσθαι, εἰς τὰ τέσσαρα στοιχεῖα πρότερον ἀναλυθήσεται ὁ νεκρός, καὶ οὕτως ἐξ αὐτῶν γενήσεται ζῷον, καὶ τὸ ὄξος εἰς τὴν τοῦ οἴνου ὕλην, τὸ ὕδωρ, καὶ οὕτως οἶνον.*

Is there anything said here about a cycle in nature, and are the two *ἀπορίαι* run into one, or are they kept apart? It is true Alexander does not refer to the conclusion as a confirmation or proof of the solution of the second *ἀπορία*, but that is a minor matter, and does not concern the essence of the dispute. Now let us see what Bonitz says (p. 373):

"Materia enim quum eadem et potioris formae sit et deterioris, potioris quidem formae materia est, quatenus ad habitum et formam tendit, deterioris vero, quatenus contra naturam, nimirum optima

quaeque appetentem, ad privationem et interitum vergit. Quod autem ex vino acetum, ex homine vivo cadaver fieri dicimus, hoc est autem ex potiore forma deteriorem et privationem, id quum latius patere viderimus formulam τοῦ ἔκ τινος quam materiae notionem (cf. ad 4, 1044 a 23), non ita est intelligendum, ac si vinum sit aceti, vivus mortui materia; neque enim, quae est materiae ac potentiae ad formam actumque ratio, perficitur vel consummatur vinum eo quod inde acetum fit, neque homo vivus eo quod moritur. Immo potius m a t e r i a vivi hominis, quatenus ad interitum vergit, κατὰ φθοράν a 1, κατὰ συμβεβηκός b 36, cf. b 33, eadem etiam cadaveris est materia, neque vero ipse homo vivus; nec vinum sed materia vini, i. e. aqua sive natura liquida, materia est aceti. Et ex potiore quidem forma continuo, neque intercedente alio quoquam, transitur ad deteriorem, a deteriore autem ad potiorem, veluti ab aceto ad vinum, ita tantum, ut antea res illa in elementa sua resolvatur; quae quidem necessaria resolutio testimonio poterat esse, non in concreta cum altera utra forma materia subsistendum, sed ad ipsam per se materiam redeundum esse, ubi de materia generationis alicuius vel interitus agitur."

Now the reader will see that both Alexander and Bonitz understand the solution of the second ἀπορία to be that it is not the wine and the living, but water and the ὕλη of the living respectively, that are the ὕλη of vinegar and the dead. The difference between them is that they seem to take κατὰ συμβεβηκός in different senses. Bonitz seems to identify the three terms παρὰ φύσιν, κατὰ συμβεβηκός, and κατὸ φθοράν, which he contrasts with γένεσις ὁπλῆ (p. 371 of his commentary) or πρὸ ὁδοῦ. According to him then there is a double reason why οἶνος is not ὕλη of ὄξος, first because wine is not completed or perfected by becoming vinegar, and secondly because it is not the wine anyway that becomes vinegar, but the ὕλη of the wine, viz. water. And the water, too, since it is ὕλη of vinegar κατὰ φθοράν is its ὕλη κατὸ συμβεβηκός only, and not καθ' αὑτό, as would be its relation to wine. According to Bonitz then the sense of the two ἀπορίαι would be somewhat similar to the discussion in the fourth chapter, especially 1044 a 23, διχῶς γὸρ τοδ' ἐκ τοῦδε, ἢ ὅτι πρὸ ὁδοῦ ἔσται ἢ ὅτι ἀναλυθέντος εἰς τὴν ἀρχήν, namely that while it is true that φθορά of the one is γένεσις of the other, still nature aims at the

better, and hence change in the forward direction only is *γένεσις* in the real sense of the word, *γένεσις ὁπλῆ*, whereas change in the opposite direction, i. e. *φθορά*, can be called *γένεσις* only *κατὰ συμβεβηκός*, and *ὕλη* in the proper sense represents the relation of the lower to the higher, whereas the contrary relation, as for example that of water to vinegar, is *ὕλη κατὰ συμβεβηκός*.

This interpretation, differing as it does in detail from Neumark's, because it takes account of the words of the text and renders them accurately, is closer to his in a part of it than is that of Alexander. Alexander does not intimate that *κατὰ φθοράν* is parallel to *κατὰ συμβεβηκός*, and does not suggest that the reason wine is not *ὕλη* of vinegar is because it is not completed and perfected by it, but assigns as the only reason the fact that it is not really the wine, but the water in the wine, that changes the vinegar. It is the water, therefore, that is the *ὕλη* of the vinegar, and not the wine. The objection that wine does become vinegar *(καίτοι γίνεται ἐξ αὐτοῦ ὄξος)* he answers by saying that this *γένεσις* of vinegar out of wine is a *γένεσις κατὰ συμβεβηκός*, not, however, because it is a *φθορά*, and all *φθοραί* are *γενέσεις κατὰ συμβεβηκός*, as Bonitz says, and also Neumark, but because, as was said before, the real thing that becomes vinegar is the water in the wine, the wine quality disappears *). Accordingly Alexander seems to understand *ἀλλὰ κατὰ συμβεβηκὸς αἱ φθοραί* in the sense that lower forms come from higher forms *κατὰ συμβεβηκός*, because in reality they come from the *ὕλη* of the higher form.

The conclusion in Bonitz's commentary on this passage as quoted above shows that according to Bonitz, too, Aristotle is not concerned

*) Baeumker puts it the same way (op. cit. p. 235, note 5): "[Es wird ausgeführt], daß nicht die Substanz, aus der die neue entsteht, sondern deren Materie sich in der Möglichkeit zu beiden Gegensätzen befinde. Wenn auch aus dem Lebenden ein Toter und aus dem Wein Essig wird, so sagen wir doch nicht, daß der Lebende der Möglichkeit nach ein Toter, der Wein der Möglichkeit nach Essig sei; denn nicht der Lebende wird eigentlich tot, der Wein Essig, sondern die Materie des Lebenden, die Materie des Essigs. Während nämlich die Materie unter beiden Bestimmungen bleibt, vergeht der Gegensatz, und es wird das Gegenteil aus ihm nur wie die Nacht aus dem Tage." Baeumker adds, however, in a note on the following page, 236 note 2, that the passage may also have the additional implication Bonitz gives it.

here in proving that there is a cycle in nature, and that *φθορά* has a subordinate place as a mere transition in the upward process. Aristotle wants to make clear, he says, that when we speak of the matter of the generation or destruction of anything we must not stop at the composite of matter and form which precedes the stage in question, thus we must not stop with wine as the substance immediately preceding vinegar, and call it its *ὕλη*, no, we must go as far as the matter itself, which may take on either the form of wine or that of vinegar.

§ 15. **Phys. I, 6 p. 189 a 22: —**

πῶς ἢ ἡ πυκνότης τὴν μανότητα ποιεῖν τι πέφυκεν ἢ αὕτη τὴν πυκνότητα;

I do not understand Neumark's defence at all. The matter seems quite simple to me, and I can see no reason for twisting the passage. Neumark says (p. 391 of his reply), "Die *πυκνότης* kann die *μανότης* nicht in Aktion setzen, um sie, die *πυκνότης* etwas, nämlich die *μανότης*, erzeugen zu lassen." This is twisting things with a vengeance. I understand the passage to mean simply that if there are only two *ἀρχαί* from which we start, namely *πυκνότης* and *μανότης*, there will never be anything else than these two *ἀρχαί*, and we shall never have a concrete object, for *μανότης* cannot take hold of *πυκνότης* and make a concrete object out of it. *πυκνότης* and *μανότης* are incompatible, when the one appears the other disappears, but in order to make a concrete object we need something that will stay while *πυκνότης* or *μανότης* works on it.

Simplicius understands it the same way (p. 199, 14): *ὅτι δὲ οὐδὲν ποιεῖ τὰ ἐναντία μόνα ὄντα, δῆλον ἐκ τοῦ τὸ ποιοῦν εἰς τι ποιεῖν ὑπομένον τὴν πεῖσιν ὡς τὸ μέλαν εἰς τὸ σῶμα, τὰ δὲ ἐναντία εἰ καθ' αὑτὰ εἴη εἰς μηδὲν ποιεῖν· οὐ γὰρ ὑπομένει ἄλληλα, οὐδὲ τὸ λευκὸν εἰς τὸ μέλαν τι ποιεῖ οὐδε ἡ φιλία εἰς τὸ νεῖκος. οὐ γὰρ τοῦ νείκους ἐστὶν ἡ φιλία συναγωγός, ἀλλὰ τῶν ὑποκειμένων στοιχείων. τὸ μὲν γὰρ ποιοῦν εἰς ὑπομένον τι ποιεῖ, τὸ δὲ ἐναντίον οὐχ ὑπομένει τὸ ἐναντίον. ἐπεὶ οὕτω γε νεῖκος μέντοι φιλία ἔσται.*

§ 16. **ib. 32:** —

ἔτι οὐκ εἶναί φαμεν οὐσίαν ἐναντίαν οὐσίᾳ· πῶς οὖν ἐκ μὴ οὐσιῶν οὐσία ἂν εἴη; ἢ πῶς ἂν πρότερον μὴ οὐσία οὐσίας εἴη;

Neumark's interpretation is far fetched. Line 29, *οὐθενὸς γὰρ ὁρῶμεν τῶν ὄντων οὐσίαν τἀναντία*, has nothing to do with this passage, which constitutes a complete argument in itself. Aristotle said in the Categories that among the properties of *οὐσία* (and by *οὐσία* he means there primarily the concrete *οὐσία*) is that it has no *ἐναντίον* (ch. 5, p. 3 b 24, *ὑπάρχει δὲ ταῖς οὐσίαις καὶ τὸ μηδὲν αὐταῖς ἐναντίον εἶναι· τῇ γὰρ πρώτῃ οὐσίᾳ τί ἂν εἴη ἐναντίον, οἷον τῷ τινὶ ἀνθρώπῳ ἢ τῷ τινὶ ζῴῳ; οὐδὲν γὰρ ἐστιν ἐναντίον*). He repeats the statement here as an admitted fact, which needs no proof, *οὐκ εἶναί φαμεν οὐσίαν ἐναντίαν οὐσίᾳ*. From this principle it follows that the *ἐναντία* cannot be *οὐσίαι*, for each of them has the other as its *ἐναντίον*. This is the major premiss, namely the *ἐναντία* are not *οὐσίαι*. The minor premiss is, from not-*οὐσίαι* cannot come *οὐσίαι* (Aristotle regards this as self-evident. Cf. Met. Z 13, p. 1038 b 23 sq., *ἔτι δὲ καὶ ἀδύνατον καὶ ἄτοπον τὸ τόδε καὶ οὐσίαν, εἰ ἔστιν ἔκ τινων, μὴ ἐξ οὐσιῶν εἶναι . . . πρότερον γὰρ ἔσται μὴ οὐσία . . . οὐσίας . . . ὅπερ ἀδύνατον*. There is the same change in number here as in the Physics, and *οὐσία* without the article). The conclusion then is that the *ἐναντία*, which are not *οὐσίαι*, cannot be the *ἀρχαί* of *οὐσίαι* in the world. Exactly the same argument is given a slightly different form in the next phrase, *ἢ πῶς ἂν πρότερον μὴ οὐσία οὐσίας εἴη*, i. e. *ἀρχαί* must come before their products, therefore the *ἐναντία*, if they are *ἀρχαί*, must come before the *οὐσίαι* of the world, but that which is not *οὐσία* cannot come before *οὐσία*, hence the *ἐναντία* cannot be *ἀρχαί*.

Simplicius analyzes the argument more in detail, but essentially as I gave it. Whether the argument is valid, and whether it may not also be used against Aristotle's views is another matter, and need not be considered here. The point is, not to read into Aristotle's words more than they contain. Simplicius's text is in part as follows (p. 200, 27): *ἐν τούτοις τρεῖς μοὶ δοκεῖ συλλογισμοὺς ἢ τέτταρας συνελεῖν, ὧν ὁ μὲν πρῶτος οἷον λῆμμα τῶν ἐφεξῆς ὢν*

δείκνυσιν, ὅτι τὰ ἐναντία οὐκ οὐσίαι εἰσίν, οἱ δὲ ἑφεξῆς δύο συνάγουσιν ὅτι τὰ ἐναντία οὐκ εἰσὶν ἀρχαί. καὶ ὁ μὲν πρῶτος τοιοῦτος· ἡ οὐσία ἐναντίον οὐκ ἔχει· τὸ ἐναντίον ἐναντίον ἔχει· τὸ ἄρα ἐναντίον οὐκ ἔστιν οὐσία. ὁ δὲ δεύτερος λαβών, ὅτι τὰ ἐναντία οὐκ οὐσία, ὡς ἐκ μεταθέσεως κατάφασιν, καὶ προσλαβών ὅτι ἡ μὴ οὐσία οὐκ ἔστιν οὐσίας αἰτία, συνάγει ὅτι τὸ ἐναντία οὐσίας οὐκ ἔστιν αἴτια· τὰ δὲ οὐσίας μὴ ὄντα αἴτια οὐκ ἂν εἶεν ἀρχαὶ τῶν φυσικῶν οὐσιῶν. ὁ δὲ τρίτος τοιοῦτος· τά ἐναντία οὐκ ἔστιν οὐσίας πρότερα· αἱ ἀρχαί τῆς οὐσίας πρότεραι τῆς οὐσίας εἰσί· τὰ ἄρα ἐναντία οὐκ εἰσίν ἀρχαὶ οὐσίας· ὅτι δὲ τὰ ἐναντία οὐκ ἔστιν οὐσίας πρότερα, δείκνυσιν οὕτως· τὸ ἐναντία οὐκ οὐσία· ἡ μὴ οὐσία διὰ τὴν οὐσίαν καὶ ἐν τῇ οὐσίᾳ τὸ εἶναι ἔχει· τὸ διὰ τὴν οὐσίαν καὶ ἐν τῇ οὐσίᾳ τὸ εἶναι ἔχον πρότερον οὐσίας οὐκ ἔστιν. Then follows a criticism of the argument into which we need not enter.

§ 17. **Ch. 7, p. 189 b 32 sq.: —**

What I gather from Aristotle is that of the two forms of expression (1) *τὸ* $\overline{\alpha}$ *γίγνεται τὸ* $\overline{\beta}$ and (2) *ἐκ τοῦ* $\overline{\alpha}$ *γίγνεται τὸ* $\overline{\beta}$, α in the first expression may represent either the *ὑποκείμενον* or the *ἀντικείμενον (στέρησις)*, for example, *ὁ ἄνθρωπος γίνεται μουσικός*, *ὁ ἄμουσος γίνεται μουσικός*. In the second form α may not stand for the *ὑποκείμενον* but for the *ἀντικείμενον* only, we cannot say *ἐκ τοῦ ἀνθρώπου γίνεται μουσικός*, we can only say *ἐκ τοῦ ἀμούσου γίνεται μουσικός*. The *στέρησις* enjoys therefore two modes of expression, the *ὑποκείμενον* only one. Now *χαλκός*, as the antecedent of *ἀνδριάς*, looks like a *ὑποκείμενον*, therefore, according to the rule just stated, the only proper form should be *ὁ χαλκὸς γίνεται ἀνδριάς*, whereas as a matter of fact usage is just the reverse. This needs an explanation. But there is only a partial explanation, for there are two things to explain, first, why we can say *ἐκ χαλκοῦ γίνεται ἀνδριάς*, and second, why we cannot say *ὁ χαλκὸς γίνεται ἀνδριάς*. The first is explained by the fact that *χαλκὸς* in the first formula comprehends *στέρησις*, hence it is equivalent to *ἄμορφος χαλκὸς*, and formula (2) is permissible. But there is no explanation given for the second point, for formula (1) is applicable both to the *ὑποκείμενον* and the *ἀντικείμενον*. This is all I can find in Aristotle,

and once more in consulting Simplicius I find that he understands the passage in the same way. Neumark's statement (p. 299 of his book), "Der Satz: 'Aus dem Erz wird eine Statue' hebt somit die Existenz des Erzes nach der Vollziehung des Werdens nicht auf, weil in dem Gewordenen kein Element enthalten ist, mit dem wir stets die Vorstellung des Gegensatzes verknüpfen", finds no support in Aristotle, and is in itself unconvincing. The reason is rather the opposite, because we do think of *στέρησις* in the word brass, we mean by it unformed brass. This is proved by the passage in the Metaph. Z, 7, p. 1033 a 13, *ὧν δ' ἡ στέρησις ἄδηλος καὶ ἀνώνυμος, οἷον ἐν χαλκῷ σχήματος ὁποιουοῦν ἢ ἐν πλίνθοις καὶ ξύλοις οἰκίας, ἐκ τούτων δοκεῖ γίγνεσθαι ὡς ἐκεῖ ἐκ κάμνοντος.*

Simplicius, too, understands the reason in the same way. In his commentary on the Physics, p. 210, 18, he says, *ὥσπερ καὶ ὅταν ἐκ τοῦ χαλκοῦ λέγωμεν τὸν ἀνδριάντα γίνεσθαι, καθ' ὃ ἐν τῷ χαλκῷ ἡ τοῦ ἀνδριάντος ἐστι στέρησις ἀνώνυμος, κατὰ τοῦτο λέγομεν. ἐπειδὴ γὰρ ἐκ στερήσεως ἡ γένεσις, ὅταν ἀπορήσωμεν τοῦ τῆς στερήσεως ὀνόματος, διὰ τοῦ ὑποκειμένου σημαίνομεν αὐτὴν ὡς ἐν τούτῳ καὶ τῆς στερήσεως οὔσης.*

§ 18. **ib. p. 190 b 17:** —

> *φανερὸν οὖν ὡς, εἴπερ εἰσὶν αἰτίαι καὶ ἀρχαὶ τῶν φύσει ὄντων, ἐξ ὧν πρώτων εἰσὶ καὶ γεγόνασι μὴ κατὰ συμβεβηκὸς ἀλλ' ἕκαστον ὃ λέγεται κατὰ τὴν οὐσίαν, ὅτι γίγνεται πᾶν ἐκ τε τοῦ ὑποκειμένου καὶ τῆς μορφῆς· σύγκειται γὰρ ὁ μουσικὸς ἄνθρωπος ἐξ ἀνθρώπου καὶ μουσικοῦ τρόπον τινά.*

I have already said a word about this above. Neumark's discussion (pp. 395—398 of his reply) is badly confused, and shows a misapprehension of Aristotle's text as well as of Simplicius. Otherwise he would not have found the passage difficult, for it is quite simple. The confusion at the basis of Neumark's misapprehension is that he does not see that Aristotle's analysis of natural facts is very frequently based upon an analysis of what is implied in speech, a method he must have inherited from the Socratean tradition. In this particular case, the very same fact, namely the *γένεσις* of *μουσικὸς ἄνθρωπος* as succeeding a stage of *ἄμουσος ἄνθρωπος*, is expressed in language in two ways (1) *ὁ ἄνθρωπος γίνεται*

μουσικός, (2) ὁ ἄμουσος γίνεται μουσικός. Which of these two represents the fact more precisely? What is it in fact which becomes μουσικός, the man or the ἄμουσος? Aristotle answers unequivocally, the man, because the man persists in both stages. The first expression therefore is the more precise of the two. But the second also is not a fiction, it also represents some reality, namely the real fact that the man, who is the real subject of the γένεσις, had as his συμβεβηκός originally the negative property (στέρησις) of ἄμουσος. In a sense therefore (κατὰ συμβεβηκός) we may say that the ἄμουσος becomes μουσικός, though in reality the ἄμουσος becomes nothing, it just ceases to be. This two-fold aspect of viewing any given process of γένεσις applies to all kinds of γένεσις. Now we are ready to understand what Aristotle means in the above passage, and what Simplicius means. They both have in mind expression number one, which is the precise description of the process of γένεσις, in as much as it names the two principles or elements which enter the product, namely matter and form. The product in every kind of γένεσις is composed of matter and form καθ' αὑτό, and not κατὰ συμβεβηκός. The relation of στέρησις to the product is κατὰ συμβεβηκός, because it really does not contribute anything except its absence and the fact that it must have been present originally, otherwise there would have been no γένεσις at all. This is the meaning of Aristotle, that if we consider only the essential elements in γένεσις, we have only two, matter and form. This is true of every kind of γένεσις, γένεσις ἁπλῶς as well as γένεσίς τις.

Simplicius, too, will become perfectly clear after this explanation, and it will be found that I quoted from Simplicius just the words that would show what his meaning is. All the rest that Neumark quotes is quite irrelevant, and his quotation of it shows that he misapprehends the entire matter.

In justification of my interpretation of ἐνυπάρχοντος in the phrase Physics I 8, p. 191 b 15, ἐκ γὰρ τῆς στερήσεως ὅ ἐστι καθ' αὑτὸ μὴ ὄν, οὐκ ἐνυπάρχοντος, γίγνεταί τι, which Neumark calls, "unverständlich und sinnlos", I will quote Philoponus, p. 178, 4, γίνεται γὰρ ἐκ τῆς στερήσεως, ἥτις καθ' αὑτὸ μὴ ὄν, ἀλλ' οὐ καθ' αὑτὸ ἐκ τῆς στερήσεως γίνεται (οὐκ ἐνυπάρχει γὰρ ἐν τῷ γινομένῳ ἡ στέρησις), ἀλλὰ κατὰ συμβεβηκός.

§ 19. **Ch. 8 p. 191 b 17—23: —**

ὡσαύτως δὲ οὐδ' ἐξ ὄντος οὐδὲ τὸ ὂν γίγνεσθαι, πλὴν κατὰ συμβεβηκός· οὕτω δὲ καὶ τοῦτο γίγνεσθαι τὸν αὐτὸν τρόπον, οἷον εἰ ἐκ ζῴου ζῷον γίγνοιτο . . . οἷον εἰ κύων ἐξ ἵππου γίγνοιτο. γίγνοιτο μὲν γὰρ ἂν . . . ἐκ ζῴου, ἀλλ' οὐχ ἡ ζῷον. ὑπάρχει γὰρ ἤδη τοῦτο.

If I understand Neumark his interpretation is again mistaken. Aristotle is not trying to prove, "Daß auch beim Werden *ἁπλῶς* (ein Tier aus einem Tier) kein neues Sein in die Erscheinung tritt, da das neugeborene Tier in dem Tier, aus dem es geboren worden ist, irgendwie vorhanden war, bevor es aus ihm (als Samen!) herauskam, war also ein Tier, bevor es als solches herauskam", but if I understand him right, he wants to prove the very opposite in this passage, namely that there can be no *γένεσις* unless there is something new, and hence we cannot say that *ὄν* comes from *ὄν*, for there is nothing to come if there is already *ὄν*. Similarly animal cannot come from animal, for again if you have already animal, there is the end of it. To make it still more particular, if we conceive of a dog as coming from a horse, we cannot say properly that this is a case of an animal coming from an animal, for the horse is an animal already, and cannot therefore change into that which it is already. In order that there shall be *γένεσις*, the element or the subject must change into what it is not, so while it is true in a sense *(κατὰ συμβεβηκός)* that in the above example of the dog and the horse the animal does come from the animal, for both dog and horse are animals, the true way of expressing it is that the dog, which is a particular kind of animal, comes from the horse which is not that kind of animal, so that it is really a case of the animal coming from the not-animal, i. e. the dog from the not-dog. I hope it will now be clear what my translation means, and how and why it differs from Neumark's, whose objections are not serious, number four being due to a misapprehension of Aristotle. The Greek commentators agree with me as I understand them, but it would take too long to quote them.

§ 20. **Met. E. 1, p. 1025 b 34 sq.: —**

Neumark (p. 399, no. 28) has in my estimation not succeeded in justifying his rendering. The literal rendering of the text says

everything that Aristotle wants to say, and is not liable to misunderstanding. In trying to improve upon the text Neumark spoiled it.

The next passage, no. 29 in Neumark, p. 400, is perhaps not important enough to wrangle over, so I shall pass it by.

The next passage however is more important. It has reference to Met. Z, 4, p. 1029 b 12—22. My interpretation is taken not from a "bad translation", as Neumark intimates, but from the illuminating commentaries (the true explanation is always self-illuminating) of Alexander and Bonitz. And in view of the fact that my interpretation is clearly expressed on p. 464 of my criticism, all I need do here is to quote my authorities, namely the two commentators above mentioned, and Aristotle himself.

Alexander, p. 467, 30: *εἰπὼν δὲ ὅτι τί ἦν εἶναί ἐστι τὸ καθ' αὑτὸ ὑπάρχον τοῖς μερικοῖς καὶ ὅπερ ἕκαστον λέγεται, ἐπειδὴ καθ' αὑτὸ ὑπάρχει καὶ ἐν τῇ ἐπιφανείᾳ τὸ λευκόν, ἐπήγαγε τὸ οὐδὲ δὴ τοῦτο πᾶν, ὡς ἂν εἰ ἔλεγεν ὅτι οὐ πᾶν τὸ καθ' αὑτὸ ὑπάρχον τινὶ τοῦτο τί ἦν εἶναί ἐστι τῷ ἐν ᾧ ὑπάρχει. οὐ γὰρ οὕτω φαμεν καθ' αὑτὸ τὸ τί ἦν εἶναι ὑπάρχειν ἐν τοῖς μέρεσιν αὐτοῦ, ὡς τῇ ἐπιφανείᾳ τὸ λευκόν· τὸ μὲν γὰρ τί ἦν εἶναι λέγεται καθ' αὑτὸ ὑπάρχειν τοῖς μέρεσιν αὐτοῦ, ἤτοι τοῖς ἀτόμοις, ὅτι ἕκαστον αὐτῶν τὸ τί ἦν εἶναί ἐστι καὶ ἐν ἑκάστῳ τελεία ἡ φύσις αὕτη ὑπάρχει, τὸ δὲ λευκὸν ὑπάρχειν λέγεται τῇ ἐπιφανείᾳ καθ' αὑτὸ ἀντὶ τοῦ πρώτως· διὰ γὰρ τὸ ἐν αὐτῇ πρῶτον ὑπάρχειν, αὕτη δ' ἐστὶν ἐν σώματι, λέγεται τὸ σῶμα λευκόν . . . ἀλλὰ μὴν οὐδὲ τὸ ἐπιφανείᾳ εἶναί ἐστι τὸ ἐπιφανείᾳ εἶναι λευκῇ· οὐ γὰρ ἐστι ταὐτὸν ἐπιφάνεια ἐπιφανείᾳ λευκῇ. καὶ τοῦ πῶς οὐ ταὐτὸν ἀλλ' ἕτερόν ἐστι τὸ ἐπιφανείᾳ εἶναι τοῦ λευκῇ ἐπιφανείᾳ, πάνυ συντόμως καὶ διὰ τοῦτο ἀσαφῶς τὴν αἰτίαν ἐπήγαγεν εἰπὼν ὅτι πρόσεστιν αὐτό, αὐτὸ λέγων τὸ ὁριστόν, ἤτοι τὴν ἐπιφάνειαν· οὐκ ἔστιν οὖν τὸ ἐπιφανείᾳ εἶναι ὅπερ τὸ ἐπιφανείᾳ λευκῇ, ὅτι ἐν τῷ ὁρισμῷ τῆς λευκῆς ἐπιφανείας λαμβάνεται ἡ ἐπιφάνεια. τοὶ μὲν γὰρ Σωκράτην ταὐτόν φαμεν εἶναι τῷ ἀνθρώπῳ, ὅτι ὅταν ὁριζώμεθα τὸν ἄνθρωπον, οὐ λαμβάνομεν εἰς τὸν τοῦ ἀνθρώπου ὁρισμὸν τὸν ἄνθρωπον· οὐ γάρ ὁριζόμενοι τὸν ἀνθρωπόν φαμεν ὅτι ἄνθρωπός ἐστιν ἄνθρωπος ζῷον πεζὸν δίπουν. τὴν δὲ λευκὴν ἐπιφάνειαν ὁριζόμενοι λαμβάνομεν εἰς τὸν ὁρισμὸν αὐτῆς αὐτὴν τὴν ἐπιφάνειαν· λέγομεν γὰρ ὅτι λευκὴ ἐπιφάνειά ἐστι ἐπιφάνεια ἔχουσα χρῶμα διακριτι-*

κὸν ὄψεως· ὥστε εἴληπται ἐν τῷ ὁρισμῷ τῆς λευκῆς ἐπιφανείας ἡ ἐπιφάνεια . . . ταῦτα εἰπὼν συμπεραίνεται λέγων, ἐν ᾧ ἄρα μὴ ἔνεστι λόγῳ αὐτὸ λέγοντι αὐτό, οὗτος ὁ λόγος τοῦ τί ἦν εἶναι ἑκάστῳ, τουτέστιν οὗτός ἐστι λόγος καὶ ὁρισμὸς ὁ δηλωτικὸς τοῦ τι ἦν εἶναι καὶ τῆς φύσεως ἑκάστῳ ἐν ᾧ λόγῳ λέγοντι καὶ ἀναπτύσσοντι αὐτό, τὸ ὁριστόν, μὴ ἐνυπάρχει ἐν τῷ λόγῳ αὐτό, ἤτοι τὸ ὁριστόν. ἐν γὰρ τῷ τοῦ ἀνθρώπου λόγῳ, τῷ λέγοντι τί ἐστιν ἄνθρωπος, οὐκ ἐνυπάρχει ὁ ἄνθρωπος.

Now we will see what Bonitz says (p. 304): "Sed etiam semotis accidentibus nondum satis definitum potest videri, quid dicatur *τὸ τηε*, quia ipsum illud *καθ' αὑτό* non eadem ubique vi usurpatur, cf. ad *Δ* 18. Alia enim ratione Callias dicitur *καθ' αὑτό* esse vel Callias vel homo vel animal, alia ratione dicitur *ἡ ἐπιφάνεια καθ' αὑτὸ κεχρῶσθαι.* Corpus enim inficitur albo colore, quatenus extrema eius pars, superficies, eo colore inficitur; superficies vero ipsa per se inficitur. Ubi autem ad definiendum *τὸ τηε* adhibemus *τὸ καθ' αὑτό*, illam cogitamus notionem, qua *καθ' αὑτό* id significat, quod in ipsa natura alicuius rei vel generis inest. Propterea dicit: *οὐ γὰρ τὸ οὕτως καθ' αὑτὸ* (int. *λέγεται τί ἦν εἶναι*) *ὡς ἐπιφάνεια λευκόν* (i. e. *ὡς ἡ ἐπιφάνεια λέγεται καθ' αὑτὴν λευκὴ εἶναι*), *ὅτι οὐκ ἔστι τὸ ἐπιφανείᾳ εἶναι τῷ λευκᾷ εἶναι.* h. e. quod natura superficiei non cernitur in eo quod est infecta colore albo. Quodsi quis in definiendo *τῷ τηε ἐπιφανείᾳ* hoc, quod modo notavimus, vitium ita sibi videatur evitare, ut *ἐπιφανείᾳ* in ipsa definitione addat, veluti si dicat: *τὸ ἐπιφανείᾳ εἶναι ἐστι τὸ ἐπιφανείᾳ λευκῇ εἶναι,* ne is quidem videri potest *τὸ τηε* recte descripsisse. *διὰ τί; ὅτι πρόσεστιν αὐτό.* Neque enim licet, si quam rem definire velis, ipsam rem definiendam adhibere ad definitionem. Sed ea demum definitio *τὸ τί ἦν εἶναι* recte assequetur, quae ipsam rem denotet, nec tamen eam ad definitionem adsciscat, quod quomodo fiat infra cap. 12 exponitur."

Bonitz, p. 305 note, justifies his interpretation of *αὐτό* as referring to the thing defined (*αὐτὸ τὸ ὁριζόμενον*) against Trendelenburg, who translates it, "Das individuelle", by quoting a parallel passage from the Topics V, 3, p. 130 b 38: *ἔπειτ' ἀνασκευάζοντα μὲν εἰ αὐτῷ προσκέχρηται οὗ τὸ ἴδιον ἀποδίδωσιν, ἢ τῶν αὐτοῦ τινι· οὐ γὰρ ἔσται καλῶς κείμενον τὸ ἴδιον. τοῦ γὰρ μαθεῖν χάριν ἀποδίδοται τὸ ἴδιον· αὐτὸ μὲν αὑτῷ ὁμοίως*

ἄγνωστόν ἐστι κτλ. Also VI, 4, 142 a 34: ἄλλος δ' εἰ αὐτῷ κέχρηται τῷ ὁριζομένῳ.

Neumark wants to know why the thing defined cannot be used in the definition? The question is rather amusing, coming as it does from one who volunteers unsolicited information about the nature of "Analogieschluß", etc., but the answer is provided in the longer passage from the Topics, τοῦ γὰρ μαθεῖν χάριν ἀποδίδοται τὸ ἴδιον · αὐτὸ μὲν αὑτῷ ὁμοίως ἄγνωστόν ἐστι. Substitute λόγος or ὁρισμός for ἴδιον, and you have the reason why no definition must contain the thing defined. Let us hope too that Neumark will not think henceforth that the interpretation I gave is "indiskutabel". Alexander and Bonitz may both be wrong and Neumark may be right, but what these two agree in saying is at least "diskutabel", with Neumark's permission.

It is a sufficient criticism of Neumark's interpretation of Z 4, p. 1029 b 22—1030 a 3 that it reads into Aristotle's words what they do not contain, not to speak of the fact that the argument is not at all improved thereby. For whether we analyze ἱμάτιον or do not analyze it, the same fact remains that white is an addition. The interpretation of Alexander and Bonitz is decidedly the correct one of the text we have, because they endeavour to make the text speak for itself, and if the result is not satisfactory, Neumark's is still less so. We shall therefore be on safer ground if we follow Alexander as he is followed by Bonitz and Schwegler. I repeat once more that while the interpretation of Neumark is untenable enough in the entire passage, it becomes absolutely impossible in the simple sentence, ἀλλά τῷ ἱματίῳ εἶναι ἆρα ἔστι τί ἦν εἶναί τι [ἢ] ὅλως ἢ οὔ; The text is here uncertain and the punctuation varies in the different texts, but how any one can get anything else out of it than that it is a question, "Is there a τί ἦν εἶναι of ἱμάτιον or not?" I cannot see. It would take too long to quote Alexander and Bonitz, I will therefore proceed to the next point, and refer the interested reader to the original sources.

§ 21. **ib. 1030 a 7 sq.: —**

ὁρισμὸς δ' ἐστὶν οὐκ ἂν ὄνομα λόγῳ ταὐτὸ σημαίνῃ (πάντες γὰρ ἂν εἶεν οἱ λόγοι ὅροι · ἔσται γὰρ ὄνομα ὁτῳοῦν λόγῳ ταὐτόν, ὥστε καὶ ἡ Ἰλιὰς ὁρισμὸς ἔσται). ἀλλ' ἐὰν πρώτου τινος ᾖ.

The meaning of the passage just quoted is this. A definition *(ὁρισμός)* is a description *(λόγος)*, for a definition is never a single word. But not every *λόγος* is a *ὁρισμός*. It is not sufficient that a *λόγος* unfolds an *ὄνομα* to make it a *ὁρισμός*, for if that were the case all *λόγοι* would be *ὁρισμοί*, for it is easy to find a *λόγος* for every *ὄνομα* and an *ὄνομα* for every *λόγος*, hence the Iliad, too, i. e. the epic, would be a definition, for it is a *λόγος* signifying the same thing as the name Iliad. Aristotle does not have to prove that a name is not a definition, everybody knows that, for he has already told us that the *ὁρισμός* is a *λόγος*, *ὥστε τὸ τί ἦν εἶναί ἐστιν ὅσων ὁ λόγος ἐστὶν ὁρισμός*, and the reader knows that from the Logic. Besides, the passage under discussion begins by telling us that not every *λόγος* which has the same meaning as a name is a definition. It is always a *λόγος* he is speaking of. *ἡ Ἰλιάς* is always used by Aristotle as an example of *λόγος* not of *ὄνομα*, thus Post. Anal. II, 10, p. 93 b 35, *λόγος δ' εἷς ἐστὶ διχῶς, ὁ μὲν συνδέσμῳ ὥσπερ ἡ Ἰλιάς* ... also Poetics 21, p. 1457 a 28, *εἷς δ' ἐστι λόγος διχῶς· ἢ γὰρ ὁ ἕν σημαίνων, ἢ ὁ ἐκ πλειόνων συνδέσμων, οἷον ἡ Ἰλιὰς μὲν συνδέσμῳ εἷς, ὁ δὲ τοῦ ἀνθρώπου τῷ ἕν σημαίνειν.* Also Met. H 6, p. 1045 a 13, *ὁ δ' ὁρισμὸς λόγος ἐστὶν εἷς οὐ συνδέσμῳ καθάπερ ἡ Ἰλιάς.* In fact Aristotle calls *ἡ Ἰλιὰς, συνεχεῖ ἕν* in the very chapter under discussion, 1030 b 9, *τοῦτο δ' ἐὰν ἑνὸς ᾖ, μὴ τῷ συνεχεῖ ὥσπερ ἡ Ἰλιάς.*

It is for these reasons that both Alexander and Bonitz understand both here and in the parallel passage (Bonitz) Post. An. II 7, p. 92 b 26, by *ἡ Ἰλιάς* the epic and not the name. Alexander's interpretation reads (p. 471, 22): *εἰπὼν δὲ ὥστε τὸ τί ἦν εἶναί ἐστιν ὅσων ὁ λόγος ὁρισμός ἐστιν, ἐπειδὴ οἱ ὁρισμοὶ ταὐτὸν σημαίνουσι τῷ ὀνόματι τοῦ τί ἦν εἶναι, ἐπήγαγεν ὁρισμὸς δ' ἐστὶν οὐκ ὢν ὄνομα λόγῳ ταὐτὸν σημαίνῃ ... οὐ πᾶς λόγος ὀνόματι ταὐτὸν σημαίνων ὁρισμὸς ἐστιν. εἰ γὰρ πᾶς λόγος ὀνόματι ταὐτὸν σημαίνων ὁρισμος ἦν, ἐπειδὴ δυνάμεθα παντὶ λόγῳ ὄνομα θεῖναι, πᾶς ἂν λόγος ὁρισμὸς ἦν· ὥστε ἐπειδὴ πάσῃ τῇ τοῦ Ὁμήρου ποιήσει κεῖται ὄνομα τὸ Ἰλιάς, ὁρισμὸς ἂν ἦν ἡ ποίησις· ταὐτὸν γὰρ δηλοῖ πάντα τὰ ἔπη, αὐτά φημι τὰ εἰκοσιτέτταρα βιβλία, ὅπερ τὸ Ἰλιὰς ὄνομα.*

Bonitz, p. 309, says, "*ἡ Ἰλιάς* usitatum Aristoteli exemplum earum rerum, quae sunt *συνδέσμῳ ἕν*, cf. ...". Let us hope

that Neumark will now realize that it is not I who did not understand Aristotle, but, strange as it may seem, Neumark himself!

§ 22. **Ch. 5, p. 1030 b 16 sq.: —**

> *λέγω δ' οἷον ἔστι ῥὶς καὶ κοιλότης, καὶ σιμότης τὸ ἐκ τῶν δυοῖν λεγόμενον, τῷ τόδε ἐν τῷδε, καὶ οὐ κατὰ συμβεβηκός γε οὐθ' ἡ κοιλότης οὐθ' ἡ σιμότης πάθος τῆς ῥινός, ἀλλὰ καθ' αὑτήν κτλ.*

Neumark brackets the words *οὐθ ἡ κοιλότης ... τῆς ῥινός*, saying they are parenthetical, and thus gets the statement that *κοιλότης* and *σιμότης* are not *πάθη* of *ῥίς* but they are *τὸδε ἐν τῷδε καθ' αὑτά*, thus making a distinction for which there is no ground whatsoever, for in the sequel Aristotle says distinctly that such properties as *σιμόν*, *ἄρρεν*, and *ἴσον* are *πάθη* (*οἷ ἐστι τοῦτο τὸ πάθος*, l. 24), (to be sure Neumark misunderstands that phrase also, as we shall see). There is no reason at all for making Aristotle contradict himself. But surely if it were impossible to construe it any other way, as Neumark pretends ("Wer nur etwas von griechischer Syntax versteht, sieht sofort, daß dies [my way of taking it] falsch ist"), the other editors would have bracketed it, as they always do with parenthetical passages. As a matter of fact, however, Neumark is the only one who has suddenly become so sensitive to Greek syntax. None of the other editors have shown this sensitiveness, nor does Alexander indicate in the least that the line in question is parenthetical, or that there is a distinction here between *πάθη* and *καθ' αὑτὰ ὑπάρχειν*. He has no scruple at all in calling *σιμότης* a *πάθος*. Here are his words (p. 476, 24): *οἷον ἔστι ῥὶς καὶ κοιλότης, καὶ σιμότης τὸ ἐκ τῶν δυοῖν, λέγω δὴ ῥινὸς καὶ σιμότητος* [lege *κοιλότητος* Bonitz], *λεγόμενον, τοῦτό ἐστι τὸ ὑπάρχειν τὴν σιμότητα ἐν τῇ ῥινί, καὶ οὐ κατὰ συμβεβηκὸς οὐθ' ἡ κοιλότης οὐθ' ἡ σιμότης πάθος τῆς ῥινὸς ὥσπερ τὸ λευκὸν τῷ Καλλίᾳ κατὰ συμβεβηκὸς ὑπάρχει ἢ τῷ ἀνθρώπῳ, ὅτι ᾧ Καλλίᾳ συμβέβηκεν ἀνθρώπῳ εἶναι λευκός ἐστιν. οὐχ ὅτι δὲ ὡς τὸ λευκὸν συμβέβηκε τῷ Καλλίᾳ, συμβέβηκε δ' αὐτῷ ὡς πάθος, οὕτω συνέβη αὐτῷ καὶ ὁ ἄνθρωπος, ἀλλ' ὡς οὐσία καὶ εἶδος· οὐδὲ κατὰ συμβεβηκὸς οὐθ' ἡ κοιλότης οὐθ' ἡ σιμότης πάθος τῆς ῥινὸς ἀλλὰ καθ' αὑτὴν ὑπάρχει ἡ σιμότης αὐτῇ, ὥσπερ καὶ τὸ ἄρρεν τῷ ζῴῳ*

καὶ τὸ ἴσον τῷ ποσῷ καὶ πάνθ' ὅσα λέγεται καθ' αὑτὸ ὑπάρχειν.

Does Alexander regard the line in question as parenthetical? I think not.

Bonitz too knows a thing or two about Greek syntax, Neumark will admit it, let us hope, and yet he translates, "Und zwar ist nicht in akzidenteller Weise die Schiefheit oder die Scheelheit Affektion des Auges, sondern an sich". Does Neumark still think that it is "Sehr traurig, dass man über diese Dinge sich unterhalten muß?" I agree with him, and continue with him further, "Und mit welchem Selbstbewußtsein werden hier diese Sekundaner-Schnitzer vorgetragen!"

§ 23. **ib. 23—26: —**

ταῦτα δ' ἐστὶν ἐν ὅσοις ὑπάρχει ἢ ὁ λόγος ἢ τοὔνομα, οὗ ἐστὶ τοῦτο τὸ πάθος, καὶ μὴ ἐνδέχεται δηλῶσαι χωρίς, ὥσπερ τὸ λευκὸν ἄνευ τοῦ ἀνθρώπου ἐνδέχεται, ἀλλ' οὐ τὸ θῆλυ ἄνευ τοῦ ζῴου.

Neumark's translation reads, p. 328 of his book, "Das [das Lebendige und das Quantitative] sind Dinge, denen der Begriff oder der Name dessen, von dem jenes [das Weiß] nur ein Zustand ist, innewohnt, und von dessen getrennt das zu Definierende gar nicht in die Erscheinung treten kann, wie ja das Weiß ohne den Menschen wohl möglich ist, das Weibliche [oder Männliche] hingegen ohne Lebendes nicht möglich ist".

If Neumark were as sensitive to the rules of Greek grammar and lexicography here as he was before, he would have known that the words *οὗ ἐστὶ τοῦτο τὸ πάθος* cannot be translated, "von dem jenes nur ein Zustand ist", that *τὸ πάθος* cannot be a predicate of *τοῦτο*. *τοῦτο τὸ πάθος* can only mean, "this *πάθος*". To express Neumark's thought the phrase would have to be *οὗ ἐστὶ ἐκεῖνο πάθος*, or *οὗ ἐστὶ τοῦτο πάθος* without the article (two mss. do omit the article). Again *δηλῶσαι* does not mean "in die Erscheinung treten", but "to make clear", "to explain", "erklären", as Bonitz has it. Again, taking Neumark's interpretation together with the example, the statement would be that the concept or the name "female" necessarily belongs to "animal", which is not true. Animal need not be female, it may be male. Neumark adds

in brackets "[oder Männliche]", but Aristotle does not say it. Besides if the name or concept of female is necessarily found in animal, the logical consequence is that animal cannot be without female, not that female cannot be without animal, which Aristotle says in the example. In Aristotle's example by the way there is no need of adding, "or male", for it is quite true that you cannot have female without animal, though it is not true that you cannot have animal without female. Again Aristotle is not really concerned in characterizing "animal" and "quantity", but "male" and "even", for he wants to know whether *σιμόν* can have a definition, and he has told us that *σιμόν* is related to *ῥίς* as *ἄρρεν* is to *ζῷον*, and *ἴσον* to *ποσόν*, which means not that nose cannot do without *σιμόν*, animal not without male, quantity not without even, but that just as even cannot be without quantity, male not without animal, so *σιμόν* cannot be without nose. Neumark has the matter confused on p. 329 of his book. He there parallels *σιμότης* with *ζῷον* and *ποσόν*, whereas Aristotle compares it with *ἄρρεν* and *ἴσον*. He says *σιμόν* belongs to *ῥίς καθ' αὑτό* just as *ἄρρεν* belongs to *ζῷον, καθ' αὑτό*, and *ἴσον* belongs to *ποσὸν, καθ' αὑτό*. The only logical thing for Aristotle to do is therefore to characterize *ἄρρεν* and *ἴσον* and other such *καθ' αὑτό* predicates (*καὶ πάνθ' ὅσα λέγεται καθ' αὑτὰ ὑπάρχειν*), and this is exactly what he does in the passage quoted at the head of this discussion.

Now in order to understand the passage correctly it is necessary, as Neumark says, to be familiar also with other passages of Aristotle in which a similar idea occurs, but it is necessary to know the proper parallel, the wrong parallel is worse than no parallel at all. Now the proper parallel to this passage is not the passage from the Categories which Neumark quotes, that is quite irrelevant to the matter under discussion, but the following passage in the Post. Anal. I 4, p. 73 a 37: *καθ' αὑτὰ λέγεται . . . ὅσοις τῶν ἐνυπαρχόντων αὐτοῖς αὐτὰ ἐν τῷ λόγῳ ἐνυπάρχουσι τῷ τί ἐστι δηλοῦντι, οἷον τὸ εὐθὺ ὑπάρχει γραμμῇ καὶ τὸ περιφερές καὶ τὸ περιττὸν καὶ ἄρτιον ἀριθμῷ, καὶ τὸ πρῶτον καὶ σύνθετον καὶ ἰσόπλευρον καὶ ἑτερόμηκες · καὶ πᾶσι τούτοις ἐνυπάρχουσιν ἐν τῷ λόγῳ τῷ τί ἐστε λέγοντι ἔνθα μὲν γραμμὴ ἔνθα δ' ἀριθμός.*

Waitz, Org. II, p. 313, renders it, "Ea quae in aliis (*αὐτοῖς*) ita inhaerent, ut ea ipsa (*αὐτά*) in quibus inhaereant ad definitionem

pertineant quae illorum naturam exprimat. Sic quod rectum dicitur vel circulare de linea utique dicitur, in qua ita quasi inhaeret (b 1), ut quid sit rectum et circulare definiri nequeat, nisi lineae notione, de qua illa praedicantur, utaris eamque ad definitionem adhibeas". In other words, *καθ' αὑτά* predicates are those in whose definitions the subjects in which they inhere are implied or expressed. Thus, straight and circular are *καθ' αὑτά* predicates of line, because in defining straight and circular, the subject line must be expressed or implied, neither straight nor circular can be defined without reference to line. White is not a *καθ' αὑτό* predicate of man, because in defining white, man is neither expressed nor implied, white can be defined without reference to man. In our passage of the Metaphysics, *σιμόν*, *ἄρρεν*, *ἴσον* are *καθ' αὑτά* predicates of *ρίς*, *ζῷον*, *ποσόν* respectively. Aristotle characterizes them in the phrase above quoted, *ταῦτα δ' ἐστὶν ἐν ὅσοις ὑπάρχει ἢ ὁ λόγος ἢ τοὔνομα, οὗ ἐστὶ τοῦτο τὸ πάθος, καὶ μὴ ἐνδέχεται δηλῶσαι χωρίς . . .* *ταῦτα* refers to the immediately preceding words, *καὶ πάνθ' ὅσα λέγεται καθ' αὑτὰ ὑπάρχειν.* These *καθ' αὑτά* predicates, Aristotle says, are all those in which the concept or the name is present of the subject in which this *πάθος* or predicate inheres, and without which subject the predicate cannot be explained. For example, the predicate "female" cannot be explained without reference to "animal", hence "female" is a *καθ' αὑτό* predicate of "animal". Let us hope that Neumark knows now "was damit anzufangen".

Before I proceed, however, to the next point, I must clinch the matter by quoting my authorities, which are not "bad translations", but again Alexander, Bonitz, and Aristotle. I have already quoted Aristotle. Now I will cite Alexander, p. 476, 34, *τίνα δέ ἐστι τὰ καθ' αὑτὸ ὑπάρχοντα ἐδήλωσεν εἰπὼν ταῦτα δ' ἐστιν ἐν ὅσοις ὑπάρχει ἢ ὁ λόγος ἢ τοὔνομα, οὗ ἐστι τοῦτο τὸ πάθος, τουτέστιν ἐκεῖνα λέγομεν ὑπάρχειν καθ' αὑτά, ὧν παθῶν καὶ κατηγορουμένων εἰς τοὺς λόγους λαμβάνεται ἢ τὰ ὀνόματα τῶν ὑποκειμένων αὐτοῖς ἢ οἱ λόγοι, καὶ οὐκ ἐνδέχεται δηλῶσαι καὶ ὁρίσασθαι τό πάθος χωρὶς τοῦ ὑποκειμένου αὐτῷ. οἷόν ἐστι πάθος τῆς ρινὸς ἡ σιμότης καὶ οὐκ ἐνδέχεται τὴν σιμότητα ὁρίσασθαι χωρὶς τῆς ρινός, ἧς ρινός ἐστι πάθος ἡ σιμότης· φαμὲν γὰρ ὅτι σιμότης ἐστὶ κοίλανσις ἐν ρινί. καὶ ἐν μὲν τῷ τῆς σιμότητος ὁρισμῷ εἴληπται τὸ ὄνομα τῆς ρινός, ἐν ἄλλοις*

δὲ ἐνδέχεται ληφθῆναι οὐ μόνον τὸ ὄνομα τοῦ ὑποκειμένου, ἀλλὰ καὶ τὸν ὁρισμόν· οἷον εἴ τις ὁρίζεται τὸ ἄρρεν, εἰ μὲν ἐρεῖ 'ἄρρεν ἐστὶ ζῷον ὃ πέφυκεν ἐν ἄλλῳ γεννᾶν', εἴληφε τὸ ὄνομα τοῦ ὑποκειμένου τῷ ἄρρενι, τὸ ζῷον, εἰ δὲ λέγει ὅτι ἄρρεν ἐστὶν οὐσία ἔμψυχος αἰσθητικὴ πεφυκυῖα ἐν ἄλλῳ γεννᾶν, τὸν ὁρισμὸν εἶπε τοῦ ὑποκειμένου τῷ ἄρρενι καὶ οὐχὶ τὸ ὄνομα. ἔστιν οὖν καὶ τὸ ἄρρεν, καὶ τὸ θῆλυ καὶ ἡ σιμότης τῶν καθ' αὑτά, ὅτι ἄνευ τῶν ὑποκειμένων αὐτοῖς οὐκ ἐνδέχεται ὁρισθῆναι' ὥσπερ τὸ λευκόν· τοῦτο γὰρ ἄνευ ἀνθρώπου ἢ ὅλως ὑποκειμένου ὁρίζεται. Bonitz (p. 313): "Haec accidentia, quae non possunt esse nisi in certo quodam subiecto, cuius notio in ipsa accidentis notione tecte continetur, quum dicit *καθ' αὑτὸ ὑπάρχειν* b 22, alia vi hanc formulam usurpat atque alibi plerumque. Alibi enim ... hic vero ea dicit *καθ' αὑτὸ ὑπάρχειν* in quibus ex praedicati natura efficitur, ut certum aliquod subiectum requirant, cf. An. Post. I, 4, p. 73 a 37..."

In the second *ἀπορία* of chapter five Aristotle discusses the same question as in the first and comes to the same conclusion, namely that where a subject is combined with a predicate which does not express the essence of the subject, but a *πάθος*, even though the *πάθος* be *καθ' αὑτό*, this composite has no true definition. The difference between the two *ἀπορίαι* is that in the first he says there is no *τί ἦν εἶναι* of *πάθη καθ' αὑτά* like *σιμόν* because *ἐκ προσθέσεως ἀνάγκη δηλοῦν*, and he has already told us that there is no real definition of *ἐκ προσθέσεως* (1030 a 3), *ὅταν δ' ἄλλο κατ' ἄλλου λέγηται, οὐκ ἔστιν ὅπερ τόδε τι, οἷον λευκὸς ἄνθρωπος οὐκ ἔστιν ὅπερ τόδε τι, εἴπερ τὸ τόδε τι ταῖς οὐσίαις ὑπάρχει μόνον.* The rest of the first *ἀπορία* makes clear the nature of *πάθη καθ' αὑτά* like *σιμόν, ἴσον, ἄρρεν, θῆλυ, ἄρτιον, περιττόν, εὐθύ, περιφερές*, etc. They are *πάθη* which necessarily imply a definite subject, therefore they are *ἐκ προσθέσεως* and have no real definition, *ὥστε τούτων τὸ τί ἦν εἶναι καὶ ὁ ὁρισμὸς ἢ οὐκ ἔστιν οὐθενὸς ἢ ἔστιν ἄλλως...* It is not a *πάθος* in abstracto with which Aristotle is concerned, the very difference between *σιμόν* and *κοῖλον* is that *σιμόν* is a concrete, it means *κοίλη ῥίς*, but it looks as though it were not *ἐκ προσθέσεως*, something like *ἱμάτιον* above, the fact of its being composite is concealed. Moreover unlike *ἱμάτιον*, the *πάθος* is

here *καθ' αὑτό*, and for this reason it might seem at first sight as if we are dealing with a real *οὐσία*. Aristotle tells us, no, it is after all *ἐκ προσθέσεως*, and not *καθ' αὑτό* in the sense in which the *τί ἦν εἶναι* requires it.

In the second *ἀπορία* the same question is involved, and an additional reason is given why *σιμόν* and *ἄρτιον* and *ἄρρεν* and the rest of *πάθη καθ' αὑτά* have no real definition, and that is because they all involve a progress ad infinitum, and the infinite cannot be defined. He proves this as follows: *σιμόν* cannot be thought without *ῥίς*, hence we may substitute for it *σιμὴ ῥίς*, as was probably actually done in Greek. But since *σιμόν* and *σιμὴ ῥίς* are the same, we may substitute again for *σιμή* in the last phrase its equivalent *σιμὴ ῥίς*, and we shall have *σιμὴ ῥὶς ῥίς*. Making the same substitution again in the last phrase we have *σιμὴ ῥὶς ῥὶς ῥίς*, and in the same way we can go on ad infinitum. He comes therefore to the same conclusion again as before, *δῆλον τοίνυν ὅτι μόνης τῆς οὐσίας ἐστὶν ὁ ὁρισμός*. He has said nothing here about genus except in a very indirect way, in so far as genus may not be *οὐσία*, but the examples he selected are not examples of genus. *σιμόν* is not a genus of *ῥίς*, *ἴσον* is not a genus of *ποσόν*, and neither *ἄρρεν* nor *θῆλυ* is a genus of *ζῷον*. Nor is *περιττὸν* or *ἄρτιον* a genus of *ἀριθμός*.

One reason for Neumark's introduction of the genus in this place is his error of inverting the order of Aristotle and speaking of *ζῷον* and *ποσόν* as *πάθη καθ' αὑτά*, or rather as not *πάθη* but as *καθ' αὑτὰ ὑπάρχοντα* of *ἄρρεν* and *ἴσον*. See p. 329 of his book, where he says: "Man kann nicht sagen, daß die Hohlheit oder die Hohlnasigkeit ein Zustand der Nase ist, oder dieser innewohnt, denn zum Wesen einer Hohlnase gehört die Hohlheit ebenso unerläßlich, wie das Fleisch, aus dem die Nase besteht. Es verhält sich hierbei nicht so, wie beim weißen Menschen, denn das Weiß-Sein gehört in keiner Weise zum Wesen des Menschen, die schwarzhäutigen Menschen sind auch Menschen, vielmehr verhält es sich damit, wie beim Männlichen und Geraden, von denen man nicht sagen kann, daß ihnen das Lebendige, beziehungsweise das Quantitative als Zustand zukomme, denn

das Männliche kann ohne das Lebendige, das Gerade ohne das Quantitative gar nicht in die Erscheinung treten, es gehört somit zum Wesen der Sache..."

It will be seen that the number of errors here is manifold, in those passages which I spaced. Neumark says that σιμόν is not a mere πάθος of nose, for a nose of that description cannot exist without σιμότης any more than it can exist without its flesh. This is a misunderstanding of καθ' αὐτὸ ὑπάρχειν in Aristotle. It is clear from what I said in the preceding section that when Aristotle calls σιμόν a καθ' αὐτὸ ὑπάρχον of ῥίς, he means h e r e not that ῥὶς σιμή cannot be without σιμόν, that is a platitude, and does not help us, for neither can a white man be without white, but, as is evident from the parallel in Post. Anal. quoted above, he means that σιμόν cannot be defined without involving ῥίς, whereas white c a n be defined without man. Hence Aristotle compares σιμόν to ἄρρεν and ἴσον, which stand in the same relation to ζῷον and ποσόν as σιμόν does to ῥίς, i. e. ἄρρεν and ἴσον are καθ' αὑτὰ ὑπάρχοντα of ζῷον and ποσόν respectively, because they cannot be defined without the latter. Neumark inverts the order and says that ζῷον and ποσόν are not πάθη but καθ' αὑτά ὑπάρχοντα of ἄρρεν and ἴσον because the latter cannot exist without them. He thus parallels ζῷον and ποσόν with σιμόν and gets the conclusion that just as σιμόν cannot be defined, so ζῷον and ποσόν cannot be defined. But ζῷον and ποσόν are examples of genus, hence Aristotle excludes here the genus from the definition. This is his mistake as I have already proved abundantly. In fact it seems queer that anyone should make Aristotle speak of ζῷον and ποσόν as ὑπάρχοντα καθ' αὑτά of ἄρρεν and ἴσον, in other words, the subject is called a p e r s e predicate of its quality! Aristotle d o e s say that the λόγος or the ὄνομα of the subject of καθ' αὑτὰ ὑπάρχοντα in the sense I explained, is present (ὑπάρχει) in the predicate, or rather in the definition of the predicate. This is legitimate, for ὑπάρχει is here not used in its technical sense, but to call the subject a ὑπάρχον καθ' αὑτό of its property or quality is a performance left for Neumark to accomplish. And how can one make σιμόν a parallel of ζῷον and by implication ῥίς a parallel of ἄρρεν? Surely subject must be compared with subject and attribute with attribute. Neumark

repeats the same blunder on page 405 of his reply, "Dann behandelt er in 5 solche Merkmale, ohne welche ein Ding gar nicht existieren kann, wie 'Leben' für 'Männlich' und 'Zahl' für 'Gerade', also notwendige Merkmale, die er zunächst durch den Ausdruck *ὑπάρχειν* bezeichnet, um für sie dann den Ausdruck *ὑπ. κ. αὑτά* zu prägen". In fact he did not even succeed in seeing that I understood the matter quite differently, or he could not have said, page 404, "Es ist nicht wahr: Im Prädikat Männlich ist der Name oder Begriff 'Mensch', 'Pferd' usw. weder enthalten, noch vorausgesetzt, und ebensowenig 'Gerade' im Namen oder Begriff 'Quantität' oder 'Quantitativ'". I did not say that *ἴσον* is contained in the *λόγος* of *ποσόν*, but the reverse, *ποσόν* is contained in *ἴσον*. Nor did I say that the name or concept of "man", "horse", etc. is contained in "male", but that the concept of "animal" is contained in "male", and that is true, "male" implies "animal", though not necessarily "man", "horse", etc.

If Neumark realizes the error of which he is guilty, he will also understand why his reference "gleichsam auf eine authentische Interpretation, Cat. III (6)" (page 408 and 404 of his reply) is quite irrelevant, and instead of helping Neumark succeeded in misleading him. For he took *καθ' αὑτό* here in the ordinary sense in which the genus or the species belongs to the object *καθ' αὑτό*, for example "animal" and "man" belong to Socrates *καθ' αὑτό* in the sense that they express his essence, his *τί ἐστι*, and Socrates cannot be without "animal" or "man". Taking *καθ' αὑτό* in this sense here, *σιμόν* would be a *καθ' αὑτό* predicate of *ῥίς* in the same way. But this is absurd, *σιμόν* does not express the *τί ἐστι* of *ῥίς*. Neumark saw the absurdity, and in order to avoid it he falls into another equally bad, for he says *σιμόν* is a *καθ' αὑτό* predicate of *ῥίς*, because "Hohlnase" cannot exist without "Hohlheit". But Aristotle says *ῥινός* simply, not *σιμῆς ῥινός*. Besides, as I said before, the fact that "Hohlnase" cannot exist without "Hohlheit" no more proves that *σιμόν* is a *καθ' αὑτό* predicate of nose, than the fact that "white man" cannot exist without "white" would prove that "white" is a *καθ' αὑτό* predicate of "man". What difference then is there between "white" and *σιμόν*? Neither expresses the *τί ἐστι* of its subject taken by itself, as "man", "nose", both express a necessary attribute of their subjects, when

taken in combination with their attributes, thus "white man", "snub nose". Neumark feels there is something wrong as can be seen from his book, page 329, beginning line seven from the end, "Aristoteles geht hier..." and page 335 line eight, beginning, "So sind diese", but having once misunderstood the peculiar meaning of *καθ' αὑτό* as applied to *σιμόν*, he closed the way for himself, which alone could lead him to the right track. The strange part about it all is that he does not seem to have consulted any authorities, who would have illuminated his path in a flash as with a search-light. He speaks of having consulted no less than three translations (p. 292, "Ich zitiere nicht nur Interpreten, sondern auch mindestens d r e i verschiedene Übersetzungen..."), which he might have left out. He also speaks of citing "Interpreten", but I find nowhere a reference to the Greek commentators, or to Bonitz, except o n c e to the latter (p. 376 of his book) in reference to a g e n e r a l question, in company with Biese, Rassow, Hertling, Ritter, Heyder, Schwegler, Zeller, all of whom, with the exception of Biese, Rassow, and Hertling, who are quoted in the adjoining notes, and the inclusion of Strümpel, were already grouped together in the same way and in connection with the same thought by Zeller. Cf. Phil. d. Gr. third ed. II, 2, 312 note 5. Apart from this I find two or three references to Schwegler and Kirchmann. I am not familiar with Kirchmann, but Schwegler if used properly s h o u l d have guided him right in this and many another passage. But the wonder becomes almost inexplicable when we find that after his attention has been called, though very briefly, to his errors, and the correct interpretation suggested in the general name of the ancient and modern commentators, Neumark should not have taken the trouble to look up those principal commentators whom he had neglected, and at least take the trouble to understand them. If he had done this in the present instance he could not stand as one baffled before my suggested rendering of the lines at the head of this section, and say in reference to it, as he does (page 403), "Man weiß wirklich nicht, was damit anzufangen". But it was his d u t y, as one suggesting "original" views and interpretations, at least to show a familiarity with the old views of Alexander and Bonitz and Schwegler, and not to appear as if he had never heard of the thing, and actually to show complete unfamiliarity with the concepts involved.

Neumark says it is not true that he made Aristotle say, "*σιμόν* does not necessarily include *ρίς*". I quote from his book page 332, "Daraus zieht Aristoteles den Schluß, daß so wie der Gebrauch von *σιμόν* ohne *ρίς* ein falscher Sprachgebrauch ist, ebenso verfehlt ist es, hinter Wort und Begriff 'Weiblich' oder 'Männlich' schon von vornherein auch den Begriff 'Lebewesen', oder hinter 'Gerade' und 'Ungerade' schon den Begriff 'Zahl' zu wittern". This is exactly the reverse of what Aristotle says, as the entire context shows, and particularly the phrase, 1031 a 7 *αλλα λανθάνει ὅτι οὐκ ἀκριβῶς λέγονται οἱ λόγοι*, which means that you gain nothing by putting subject and predicate together, *ἀριθμὸς περιττός*, for even in this form of expression, *περιττός*, though it is not apparent (*λανθάνει*), already contains *ἀριθμός*, and hence the phrase amounts to *ἀριθμὸς*, *ἀριθμὸς περιττός*, and this will also lead to infinity.

Having made clear the meaning of the chapter, and particularly the second *ἀπορία*, let us see what the "Mangelhafte Übersetzung", namely the commentaries of Alexander and Bonitz, have to say about the matter.

Alexander, page 477, 24: *Περί τῶν καθ' αὑτά φησιν ὑπαρχόντων καὶ ἕτέρα ἀπορία ἐστιν. ζητήσειε γὰρ ἄν τις ὅτι εἰ καθ' αὑτὸ τὸ σιμὸν ὑπάρχει τῇ ρινὶ καὶ τὸ κοῖλον, ἔσται καὶ ἡ σιμὴ ρὶς τῇ κοίλῃ ρινὶ ταὐτόν, εἰ δὲ τοῦτο, καὶ διελόντι τὸ σιμὸν τῷ κοίλῳ. ἀλλὰ τοῦτο ψεῦδος. τὸ μὲν γὰρ κοῖλον ἐπὶ πλέον ἐστὶ τῆς σιμότητος· κοῖλον γὰρ καὶ ἐν ξύλῳ καὶ ἐν χαλκῷ καὶ ἐν γῇ καὶ ἐν ἄλλοις πολλοῖς θεωρεῖται, σιμὸν δὲ ἄνευ τῆς ρινὸς οὐκ ἔστιν . . . εἰ δὲ ἀδύνατόν ἐστιν, ὥσπερ εἴρηται τὸ σιμόν ἄνευ τῆς ρινὸς λεχθῆναι, ἀλλ' ἅμα τῷ σιμῷ εἰπεῖν τὸ πράγμα λέγομεν οὗ πάθος ἐστὶ τὸ σιμόν, εἰ δὴ τοῦτο ἀδύνατον, τὸ ῥῖνα, φησί, σιμὴν εἰπεῖν ἢ οὐκ ἔστιν, ἀλλὰ μόνον τὸ σιμὸν χρὴ λέγειν, ἢ εἴπερ λεχθήσεται σιμὴ ρίς, δὶς ἔσται τὸ ρὶς εἰρημένον . . . διὸ ἄτοπον ἐν τοιούτοις, ἐν οἷς αἱ τοιαῦται ἀδολεσχίαι, τὸ τί ἦν εἶναι ὑπάρχειν. εἰ δέ τις λέγει ὅτι ἔσται καὶ ἐν τοιούτοις τὸ τί ἦν εἶναι καὶ ὁρισμός, εἰς ἄπειρον εἶσιν. εἰ δὲ τὸ εἰς ἄπειρον ἀνιέναι οὐκ ἐνδέχεται, οὐκ ἔστιν ἐν τοιούτοις τὸ τί ἦν εἶναι οὐδὲ ὁρισμός. . . .*

Now Bonitz (page 314): — "Aliam addit difficultatem, in quam incedere videatur qui talia definire susceperit. Si idem,

ait, significat *σιμὴ ῥίς* et *κοίλη ῥίς*, consequens est, ut idem sit *σιμόν* et *κοῖλον*, quod manifesto falsum est. Sin minus, aut non licet omnino dicere *σιμὴ ῥίς*, aut bis idem dicitur; etenim quoniam *τὸ σιμόν* iam continet notionem nasi, si quis dicit *ῥὶς σιμή* idem dicit ac *ῥὶς ῥὶς κοίλη*. Unde apparet non posse talia definiri, nam si quis vellet definire, *εἰς ἄπειρον εἶσιν · ῥινὶ γὰρ ῥινὶ σιμῇ ἔτι ἄλλο ἐνέσται* b 35 ... itaque quoniam definiendo in infinitum ferimur, *τὰ δ' ἄπειρα οὐκ ἔστι διεξελθεῖν* a 2, 994 b 30, non est omnino *ὁρισμός* talium, *ἐν οἷς συμβαίνει δὶς τὸ αὐτὸ λέγειν* a 5, cf. 1030 b 32. Quin etiam si eiusmodi praedicata cum iis coniunxeris, quae requirunt, subiectis, veluti *ἀριθμὸς περιττός*, ne tum quidem eorum *ὁρισμός* potest esse, *ἀλλὰ λανθάνει ὅτι οὐκ ἀκριβῶς λέγονται οἱ λόγοι* a 7, hoc est, si recte philosophi mentem perspicio, non satis accurate definimus, si *ἀριθμὸν περιττόν* definire suscipimus, quia in *περιττῷ* iam continetur notio numeri.."

§ 24. **Ch. 6, 1031 a 35: —**

τὰ ἄκρα when it refers to extremes in qualities, always denotes in Aristotle the two extremes of the same kind, thus black and white are *τὰ ἄκρα*, also sweet and bitter, fire and earth, etc.; two extremes of different kinds, for example white and educated are never called in Aristotle *τὰ ἄκρα* (cf. Bonitz Ind. Arist. p. 29, s. v. *ἄκρος* and references). Now then how will Neumark translate *οὐ γὰρ ὡσαύτως τὰ ἄκρα γίγνεται ταὐτά?* White and black cannot be similarly the same? That might mean, white and black cannot both be the same as the *τί ἦν εἶναι*, because they cannot both be identical. So far so good. But *τὰ ἄκρα* in the next phrase, *ἀλλ' ἴσως γ' ἐκεῖνο δόξειεν ἂν συμβαίνειν τὰ ἄκρα γίγνεσθαι ταὐτὰ κατὰ συμβεβηκός, οἷον τὸ λευκῷ εἶναι καὶ τὸ μουσικῷ εἶναι*, cannot be translated as Neumark does, for *μουσικόν* and *λευκόν* are not related to each other as *τὰ ἄκρα*. Each one of them may be the *ἄκρον* of its other *ἄκρον*, so *μουσικόν* and *ἄμουσον* may be called *τὰ ἄκρα*, *λευκόν* and *μέλαν* may be called *τὰ ἄκρα*, but not *λευκόν* and *μουσικόν*.

Again, the idea that "white" and "educated" are connected is too far fetched to be considered seriously. Such an unexpected notion in this connection, which by the way is not particularly re-

levant to the discussion, Aristotle would not express in so obscure a manner, and by means of adjectives which are so frequently used by him as examples, as types of *συμβεβηκότα*, without reference to the particular meaning of the words themselves, so that *λευκόν* as well as *μουσικόν* is equivalent in Aristotle to *συμβεβηκός*, which may in most cases be substituted for them. It is a sufficient criticism of this far fetched notion of Neumark that it never occured to anybody else before. If Neumark could at least cite an instance in Aristotle where such a statement is made that *λευκοὶ ἄνθρωποι* are more *μουσικοί* than the others, there might be some justification for his idea. In default of that, *λευκόν* and *μουσικόν* here must in accordance with Aristotle's usage represent merely types of *συμβεβηκότα*, and any other terms might have been used in their place, such as *λευκόν* and *λεῖον* in chapter four in connection with *ἐπιφάνεια*. The examples in which *λευκόν* and *μουσικόν* are used separately as types of *συμβεβηκότα* are too numerous to mention. They are so numerous that Bonitz (Ind. Arist. s. v. *μουσικός*, page 474) begins with a remark, "usitatum exemplum *τοῦ συμβεβηκότος*". It is also found in connection with *δίκαιος* in the same sense in Met. *Δ*, 6, *ἓν λέγεται τὸ μὲν κατὰ συμβεβηκός, τὸ δὲ καθ' αὑτό· κατὰ συμβεβηκὸς μὲν οἷον Κορίσκος καὶ τὸ μουσικὸν καὶ Κορίσκος μουσικός· ταὐτὸ γὰρ εἰπεῖν Κορίσκος καὶ τὸ μουσικόν, καὶ Κορίσκος μουσικός, καὶ τὸ μουσικὸν καὶ τὸ δίκαιον, καὶ μουσικὸς καὶ δίκαιος Κορίσκος· πάντα γὰρ ταῦτα ἓν λέγεται κατὰ συμβεβηκός, τὸ μὲν δίκαιον καὶ τὸ μουσικόν, ὅτι μιᾷ οὐσίᾳ συμβέβηκεν. . .*

But we actually find instances of *λευκόν* combined with *μουσικόν*, which serve as a commentary to our passage. Thus Met. *Δ*, 7, page 1017 a 7 sq., *τὸ ὂν λέγεται τὸ μὲν κατὰ συμβεβηκός . . . οἷον τὸν δίκαιον μουσικόν . . . ἢ τὸν λευκὸν μουσικὸν ἢ τοῦτον λευκόν, τὸ μὲν ὅτι ἄμφω τῷ αὐτῷ συμβεβήκασι . . .*, also Mechanica 24, page 856 a 34, *τὸ αὐτὸ μὲν γάρ ἐστι κέντρον ἀμφοῖν, ἀλλὰ κατὰ συμβεβηκός, ὡς μουσικὸν καὶ λευκόν*. But the very clearest example of the use of *λευκός* and *μουσικός* as *συμβεβηκότα*, and in what sense they are the same, is found in Met. *Δ*, 9, page 1017 b 27, *Ταὐτὰ λέγεται τὰ μὲν κατὰ συμβεβηκός, οἷον τὸ λευκὸν καὶ τὸ μουσικὸν τὸ αὐτό, ὅτι τῷ αὐτῷ συμβέβηκε.* Is there any further doubt now in any body's mind that Aristotle

is not dreaming of the black race and the white race and their relative aptitudes for education? Only he who has no familiarity with Aristotle's language and terminology could have conceived such a figment.

Now I really think I may be excused from giving an extended interpretation of this difficult part of chapter 6, as I have no explanation more satisfactory than that of Alexander and Bonitz, and the interested reader is hereby referred to them. My duty is done when I have shown that Neumark's interpretation is impossible. The other sense of *ὅκρα* is of terms in a syllogism, a very common use in the Logic, hence no interpolations are necessary to adopt that meaning here. It is true that the passage still remains difficult, but it is at least not absurd, and in consonance with Aristotle's style and terminology. Neumark's objections to the interpretation I suggested (I merely suggested it, I did not give it in full), are not serious, and would be seen to be groundless if I went to the trouble of giving it in full. It may however be found in Bonitz, and there is no need of repeating it here. Neumark's statement (page 409), "Die Tatsache, daß zwei Merkmale einem Dinge nur *κ. σ.* zukommen, spricht eben d a f ü r , daß sie von einander v e r s c h i e d e n sind", is properly corrected by the passage I quoted from the Met. *Δ*, 9, in which Aristotle calls *μουσικόν* and *λευκόν*, *ταὐτὰ κατὰ συμβεβηκός* because *τῷ αὐτῷ συμβέβηκε*.

§ 25. **Ch. 8, p. 1033 b 19: —**

> *πότερον οὖν ἔστι τις σφαῖρα παρὰ τάσδε ἢ οἰκία παρὰ τὰς πλίνθους; ἢ οὐδ' ἄν ποτε ἐγίγνετο, εἰ οὕτως ἦν, τόδε τι· ἀλλὰ τὸ τοιόνδε σημαίνει, τόδε δὲ καὶ ὡρισμένον οὐκ ἔστιν, ἀλλὰ ποιεῖ καὶ γεννᾷ ἐκ τοῦδε τοιόνδε.*

Neumark wishes to make out that my translation of the words *ἢ οὐδ' ἄν ποτε ἐγίγνετο, εἰ οὕτως ἦν, τόδε τι· ἀλλὰ τὸ τοιόνδε σημαίνει* is the same as his own (page 410, "H.... setzt mir m e i n e e i g e n e Übersetzung entgegen"), also that his translation does not differ from the accepted one (ib., "Ich weiche nämlich hier in der Übersetzung gar nicht von der gangbaren ab"). Let us see. As I understand the words in question they are not interrogative but declarative. Aristotle says, if we assume the separate and actual existence

of ideas of sphere and house apart from the particular spheres and houses, then no *τόδε τι* could come into being, i. e. no particular house could come into being. But the particular houses are not all identical, therefore *τόδε τι* does not here mean identity, but the reverse, individuality and difference. Neumark would have to translate the words as a question, thus: If there are ideas of house, sphere, etc., would not then all things of the same class be identical (page 340 of his book, "statt alle ein Dieses *[τόδε]*, das heißt einander völlig gleich zu sein")? *τόδε τι* according to Neumark then refers not to the actual things we know in the world with their individual differences, but to the imaginary things which the Platonic theory of Ideas would have to produce, things which are completely alike. In his reply, page 409, he modifies his translation somewhat and instead of translating, "would not all things be a *τόδε τι*?" he translates, "would not the product be identical with the producing *τόδε τι*?" ("das Produkt ... müßte dem zeugenden *τόδε* in allen Stücken gleich sein"). This is just as impossible as the original translation, for there is nothing to indicate that *τόδε τι* refers to the cause of the *γένεσις*, the idea. This translation leaves the verb *ἐγίνετο* without a subject. *τόδε τι* means a concrete thing, any concrete thing in nature, it is not used as a name for the idea. Or does he perhaps mean by *τόδε τι* (dem zeugenden *τόδε*, das zeugende Individuum, 409) not the idea as the cause of *γένεσις* according to Plato, but the actual *ἄνθρωπος* — father, let us say, and the words would be translated, "would not then the product, i. e. *ἄνθρωπος* — fils, be identical in all respects with the *τόδε τι*, i. e. *ἄνθρωπος* — père?" But what warrant have we in referring *τόδε τι* to *ἄνθρωπος* — père? And once more *ἐγίνετο* is left without a subject. Moreover according to my interpretation Aristotle is only stating a fact in these words, namely that *γένεσις* would be impossible, he does not say why it would be impossible, and we have to supply the reason by referring to a parallel passage, or in some other way. According to Neumark Aristotle does not say that *γένεσις* would be impossible, but he says what sort of things we should have if the theory of Ideas were true. Does Neumark still think I am opposing to him his own translation, which is the same as the accepted one? It is really difficult to keep one's patience in this discussion.

The two interpretations are therefore quite different, the only question is which is the right one. Now I have already explained (page 468 of my criticism) why Neumark's interpretation is impossible. ἢ οὐδ' ἄν ποτε ἐγίνετο, εἰ οὕτως ἦν, τόδε τι cannot possibly mean, "would not all things of the same class be completely equal." ἐγίνετο refers to γένεσις, not to the form which things would take after γένεσις. τόδε τι means a particular, and a particular is not the same as, but different from, any other particular. The word "all" or "all of the same class" is absolutely essential and it is not in the text. Moreover, what does Neumark do with the word ποτε? It has no place in his translation at all. "Sometimes", it would have to mean, but the qualification would make no sense. In my translation οὐδ' . . . ποτε means "never", and gives good sense. The correct translation is therefore the one which I gave, and which corresponds to that of Bonitz, "Wenn es sich so verhielte, so würde nicht einmal ein einzelnes Etwas entstehen". And Alexander understands it exactly in the same way. The question only is why would γένεσις of the particular, hence all γένεσις, be impossible on this theory? Alexander gives two reasons. Jirst, if the Ideas or forms are actual and separate existences, then the only way anything could arise from matter and form would be by composition (σύνθεσις) and not γένεσις, just as stones become a house, not by γένεσις, but by σύνθεσις. The example seems to me an unfortunate one, for the stones of a house are not the form but the matter. However, the idea seems clear, he wants to illustrate that γένεσις is not the combination of two actualities, but of a potential and an actual. Alexander evidently has in mind Aristotle's statement in Z, 13, page 1039 a 3 sq., ἀδύνατον γὰρ οὐσίαν ἐξ οὐσιῶν εἶναι ἐνυπαρχουσῶν ὡς ἐντελεχείᾳ· τὰ γὰρ δύο οὕτως ἐντελεχείᾳ οὐδέποτε ἓν ἐντελεχείᾳ, ἀλλ' ἐὰν δυνάμει δύο ᾖ, ἔσται ἕν, οἷον ἡ διπλασία ἐκ δύο ἡμίσεων δυνάμει γε· ἡ γὰρ ἐντελέχεια χωρίζει. ὥστε εἰ ἡ οὐσία ἕν, οὐκ ἔσται ἐξ οὐσιῶν ἐνυπαρχουσῶν. . .

The other reason he gives is that if the forms were actual per se existents, then a given form existing in one matter could not at the same time exist in another matter, an objection which does not apply to Aristotle's mode of conceiving form, since he does not make it separate and concrete, he separates it only in thought from the particulars. In reality they are really multiplied with the multiplication of the particulars.

Following are his words (page 496, 15): *καὶ ἐρωτήσας ἐπικρίνει λέγων ἢ οὐκ ἄν ποτε ἐγίνετο τόδε καὶ αἰσθητόν· σύνηθες δὲ αὐτῷ τὸ τόδε τι ἐπὶ τῶν αἰσθητῶν καὶ εἰς δεῖξιν πιπτόντων καὶ ὅλως ἐπὶ τῶν καθ' αὑτὸ δυναμένων εἶναι λαμβάνειν . . . οὐκ ἂν οὖν, φησιν, εἰ οὕτως ἦν, τουτέστιν εἰ χωριστὰ καὶ καθ' αὑτὰ ἦν τὰ εἴδη, ἐγίνετο ἄν τόδε τι, ὥστε καὶ ἄλλου τινος ἀλλοιουμένου ἐπιγίνεσθαι τὸ εἶδος ἀχρόνως τῷ ἀλλοιουμένῳ· ἀλλ' εἴπερ ἄρα ἔμελλε γίνεσθαι ἐν τῇ ὕλῃ, κατὰ σύνθεσιν ἂν τοῦτο ἐγένετο. ὡς γὰρ οἱ λίθοι αὐτοὶ καθ' αὑτοὺς ὄντες συνθέσει ἀλλ' οὐ διὰ γενέσεως καὶ ὅλως ἀλλοιώσεως τῆς οἰκίας μέρη γίνονται καὶ ταύτην ἀπεργάζονται, οὕτως εἴπερ ἦσαν καὶ τὰ εἴδη καθ' αὑτά, συντιθέμενα μετὰ τῆς ὕλης τὰ ἄτομα ἂν ἐποίει, ἀλλ' οὐ διὰ γενέσεως καὶ ἀλλοιώσεως. καὶ ὅλλως, ὥσπερ ὁδὶ ὁ οἶνος καὶ τοδὶ τὸ μέλι καθ' αὑτὰ ὄντα τὸ οἰνόμελι πεποιηκότα οὐ δύνανται καὶ ἐν ὅλλοις εὑρίσκεσθαι, οὕτως εἴπερ καὶ ὁ ὄνθρωπος καθ' αὑτὸν ἦν, συντεθεὶς τηδὶ τῇ ὕλῃ καὶ ποιήσας τὸν Σωκράτην, ἐν ἑτέρᾳ ὕλῃ οὐκ ἂν ἠδυνήθη γενέσθαι, ὥστε καὶ ἕτερον ἄνθρωπον ποιῆσαι, μέχρις οὗ ἐχωρίσθη τῆς ὕλης μεθ' ἧς τὸν Σωκράτην ἐποίησεν. ὅπερ οὐ συμβαίνει τοῖς μὴ χωριστὰ τὰ εἴδη λέγουσιν· οὐ γὰρ καθ' αὑτόν φασιν εἶναι τὸν ἄνθρωπον καὶ τὸ εἶδος τοῦ ἀνθρώπου, ἀλλὰ τῇ ἐπινοίᾳ τοῦτον χωρίζουσιν ἐκ τῶν πολλῶν, ἐν τοῖς μερικοῖς δὲ τὴν τοιάνδε φύσιν τὸ εἶναι διδόασιν.*

Bonitz gives the first reason of Alexander, citing the parallel in chapter thirteen. He says (page 327): "Ad haec quaestionem ita respondet Aristoteles, ut si formas seorsim esse poneremus, generationem omnino tolli censeat, *ἢ οὐδ' ἄν ποτε ἐγίνετο, εἰ οὕτως ἦν, τόδε τι. . .* Quod cur ita statuat, colligi potest coll. Z 13. 1039 a 3 sqq.; etenim quoniam ex duabus substantiis, quae quidem actu sint, nunquam una exsistit substantia, si et formam et materiam utrumque per se esse poneremus, nunquam ex utroque exsisteret res definita ac sensibilis, *τόδε τι.* Ponendum potius, si recte assequor Aristotelis sententiam, utrumque ita ut alterum exspectet, materia ut formae definitionem, forma ut materiam definiendam exspectet, neutra vero per se et absolute sit."

The reader will see that there is not the least similarity between the accepted interpretation and the one given by Neumark.

The next phrase, *ἀλλὰ τὸ τοιόνδε σημαίνει, τόδε δὲ καὶ*

ὡρισμένον οὐκ ἔστιν, ἀλλὰ ποιεῖ καὶ γεννᾷ ἐκ τοῦδε τοιόνδε, is also understood differently from the way in which Neumark renders it. He makes the subject of *σημαίνει* the individual thing, *τόδε τι* (page 340 of his book, "[es] ist nicht einzusehen, woher die Verschiebung eintreten konnte, daß die Individuen einer und derselben Art, statt alle ein Dieses (*τόδε*), das heißt völlig gleich zu sein, in Wirklichkeit nur ein Derartiges (*τοιόνδε*), das heißt einander nur ähnlich sind"; also, page 409 of his reply, "das Produkt, sagt Aristoteles, müßte dem zeugenden *τόδε* in allen Stücken gleich sein, in Wahrheit jedoch ist es ihm nur ähnlich, d. h. es ist ihm nur in den allgemeinen Artmerkmalen gleich"), whereas according to the accepted interpretation the subject is the form. The form signifies not a particular and definite thing (*τόδε τι*), but a quale, a kind of thing. In these words Aristotle explains why the objection urged against Plato's Ideas does not apply to his own forms, because, he says, whereas according to Plato the Idea is itself a concrete and definite thing, i. e. an actual thing, the form is not, it is only a quale, it cannot exist by itself as an actuality, it can only actualize the potential by making it of a certain kind, *ποιεῖ καὶ γεννᾷ ἐκ τοῦδε τοιόνδε*. Not being in itself an actual and separate thing, it can combine and form a unit with matter.

Putting the interpretation of Aristotle's text aside, the argument which Neumark brings forward against the Ideas, taken in itself, does not appeal to me. Why, if there are Ideas, must all men, say, be alike in all respects? The Idea according to Plato, or according to Aristotle's conception of Plato, is a real thing existing in an intelligible world, and serving as a model for the things in this world. Just what is meant by its serving as a model, and what happens when it is the cause of the production of a natural object, Plato nowhere makes clear. What *μέθεξις* means we do not know. We do know that the Idea is eternal and unchanging. It seems to me therefore quite possible that the reason Aristotle says here that on the theory of Ideas *γένεσις* would be impossible is this very thing, namely, how can a thing which does not come in contact with its product, and remains eternally the same, not being in any way affected by the presence or absence of its product, be in any way responsible for its product, or be a cause at all? However, be that as it may,

the Idea of man is in some manner a cause, and produces, let us say, the first man, or the first man comes into being after the model of the Idea. This man cannot be like the Idea exactly, for the reason that he is made of matter and the Idea is not. Now this first man produces a second man, and in the production of this second man the Idea serves again as a model. Hence the second man looks like the first man, and not like a cat or a dog or a chair. But now what reason is there why the second man should look in all respects like the first man? Because he is modelled on the same Idea? But, in the first place, the process is here different, for whereas the first man (if there is such) was produced directly by the Idea out of a formless matter, the second man was produced by the first. This, however, is no cogent argument, for we may compare the third man with the second man, and argue that they should both be alike because they are both modelled on the Idea, and both produced by another man. But here again, if we admit that the second man may be different from the first, it follows that the third must be different from the second, since they have different producing agents. But there is another reason why one man need not be like another one. The matter in the one is different from the matter in the other. Neumark objects to this as a valid reason, because, he says (page 340 of his book), "Da die Formen, die Ideen, außerhalb des Stoffes sind und für die Gestaltung der Materie das Muster abgeben, so kann man in die Materie selbst keinerlei Form setzen, der Stoff kann also niemals ein Individuationsprinzip abgeben". If I understand Neumark correctly, this means that the Idea cannot come in contact with matter at all, cannot operate with it at all. If this is what he means, and this is the objection I gave a moment ago, then the only logical outcome is that the Idea cannot be a cause at all, it can only exist in its changeless eternity, and cannot even produce one man, not to say two or three or more, like or unlike. If in some way it can produce one man, the second man is very easy, and his difference from the first just as easy. The real difficulty is therefore, how can the Idea be a cause at all. It cannot act upon itself, for it is eternally unchanging, it can only therefore exist, it can produce nothing, *φανερὸν ἄρα ὅτι ἡ τῶν εἰδῶν αἰτία . . . εἰ ἔστιν ἄττα παρὰ τὰ καθ' ἕκαστα, πρός τε τὰς γενέσεις καὶ τὰς οὐσίας οὐθὲν χρήσιμα* (Z 8, 1033 b 26—28). There is no question at all

of identity and similarity. On the theory of the Ideas there cannot be any γένεσις at all, not one τόδε τι could ever come into being, ἢ οὐδ' ἂν ποτε ἐγίνετο τόδε τι.

Now a word as to the principle of individuation. It is not true to say that chapters 7—9 of Z are devoted to the principle of individuation. That there are passages in those chapters indicating that matter is the principle of individuation is true, but that is quite a different thing from the other. If there is any one topic predominating in these three chapters, it is the function of the form in γένεσις, and particulary that the form itself is not subject to γένεσις. Naturally if we know precisely the relation which form bears to matter and to the product, we know what the principle of individuation is. But in reality this is not the question between me and Neumark, the point at issue is solely the precise translation and interpretation of the passage just discussed, and I hope I have done it justice.

§ 26. **Chs. 10 and 11: —**

We have seen in discussing chapter five how Neumark, misled by misunderstanding the term καθ' αὑτό as applied to σιμόν, and by comparing the latter with ζῷον and ποσόν instead of with ἄρρεν and ἴσον, introduced the genus into the argument of that chapter, for which there was no warrant. For as we saw there Aristotle's proof that there is no τί ἦν εἶναι of σιμόν consists in showing that though σιμόν is καθ' αὑτό in a certain sense, namely that its definition involves a definite subject, and though it looks like a unity, it is really nothing more than another case of λευκὸς ἄνθρωπος in disguise. So nothing was said about genus at all in chapter five. Now this fact alone, that genus is not spoken of in chapter five, makes Neumark's case so much weaker for chapter ten, for there is no reason now to suppose that this chapter deals with genus unless the case is quite clear. Now let us see whether it is or not.

At the very start it seems to me that Neumark does not properly state the subject of the argument in chapter ten. It is not intended to show, "die Identität des Inhalts des Einzeldings samt seinen notwendigen Merkmalen mit dem Inhalt des Wahrhaft-Seienden" (page 341 of his book, 412 of his reply). The problem is no more and no less than that stated in the opening of the chapter, which

Neumark did not render properly (page 341 of his book), and which was therefore the cause of further misunderstanding, in particular of the lines 1035 b 31—33. He says: "Den Ausgang bildet die Frage, inwiefern die Teile eines Begriffs, dem ganzen Begriff... innewohnen müssen, und in welchen Fällen und in welchem Sinne die Teile eines Naturdings früher oder später sind, als das Ganze". The words which I spaced are inaccurate. In fact I do not understand what they mean. A concept must have its parts in it exactly in the same way as any other whole. How can there be a whole without its parts? However, Neumark does know what he means, though I do not. It has something to do with the question of the place of the genus in the definition. What concerns us, however, is to know whether this is what Aristotle says. His words are, chapter ten init., *ἐπεὶ δὲ ὁ ὁρισμὸς λόγος ἐστί, πᾶς δὲ λόγος μέρη ἔχει, ὡς δ' ὁ λόγος πρὸς τὸ πρᾶγμα, καὶ τὸ μέρος τοῦ λόγου πρὸς τὸ μέρος τοῦ πράγματος ὁμοίως ἔχει, ἀπορεῖται ἤδη πότερον δεῖ τὸν τῶν μερῶν λόγον ἐνυπάρχειν ἐν τῷ τοῦ ὅλου λόγῳ ἢ οὔ:*

The concept corresponds to the thing. The concept consists of parts, and so does the thing. Therefore the parts of the concept correspond to the parts of the thing. Now the question is, must the concept of the parts of the thing form part of the concept of the whole thing? An illustration will make the matter clear. "Plane figure bounded by a line all the points of which are equidistant from a point within called the centre", is the concept of circle. This concept has parts, viz. "figure", "plane", etc. So has the circle parts, viz. semicircles, segments, etc. Now must the concept of the parts of the circle form a part of the concept of circle? Evidently it does not. None of the words in the above definition stands for semicircle or segment. Let us take another example. "The union of a consonant and a vowel", is the concept of syllable. This concept has parts. So has the syllable parts, the consonant and the vowel. Does the concept of the parts of syllable form a part of the concept of syllable? Yes. The concept of vowel and the concept of consonant are actually parts of the above definition, or concept of syllable. How is it that in the one case the answer is yes, and in the other it is no? The explanation is, the word "part"

is ambiguous, and was used in two different senses in the above illustrations. And the reason the word "part" is ambiguous is because the word "thing", or "circle", or "syllable" is also ambiguous. When we speak of a circle we may mean the form of circle as the geometer understands it, or the actual line merely that the child sees, or in a cruder sense still the brass, if the circle is made of brass. Similarly when we think of man, we may think of that which makes him man, namely his soul (containing life and reason), or his body (flesh and blood and bones), or the man as a whole, soul and body. Now just as when we think of man we may have any one of those in mind, so when we think of part of man (or of part of circle), we may mean part of his soul, or part of his body, or part of the composite (*μέρος μὲν οὖν ἐστὶ καὶ τοῦ εἴδους . . . . καὶ τοῦ συνόλου τοῦ ἐκ τοῦ εἴδους καὶ τῆς ὕλης καὶ τῆς ὕλης αὐτῆς*). This is the solution of the difficulty. The concept denotes the form, that we know already, hence the parts of it must denote parts of the form. The answer then is, if by part of the thing you mean part of the form of the thing, then it is true that the concept of the part of the thing must constitute a part of the concept of the thing, but if you mean by part of the thing, part of the matter of the thing, then the concept of the part of the thing does not form part of the concept of the thing. Applying our result to the above illustrations, we see why the concept of semicircle is not contained in the definition of circle, because a semicircle is a part of the matter of the circle, not of its form. But the concepts of vowel and consonant are contained in the concept of syllable, because vowel and consonant are parts of the form of syllable.

This is practically all that chapter ten contains, and I cannot see in this content as I gave it any information as to the position of the genus in the definition. In order to know whether the definition contains the genus as one of its parts, we should according to the rule just laid down know whether the genus is part of the form of the thing or part of its matter. If it is the former it is a part of the definition, if the latter it is not. But whether it is the former or the latter we are not told. Neumark reads this information into lines 1035 b 14—31, in particular lines 27—31.

The entire passage reads, *ἐπεὶ δὲ ἡ ζῴων ψυχὴ (τοῦτο γὰρ οὐσία τοῦ ἐμψύχου) ἡ κατὰ τὸν λόγον οὐσία καὶ τὸ εἶδος καὶ*

τὸ τί ἦν εἶναι τῷ τοιῷδε σώματι (ἕκαστον γοῦν τὸ μέρος ἐὰν ὁρίζηται καλῶς, οὐκ ἄνευ τοῦ ἔργου ὁρισεῖται, ὃ οὐκ ὑπάρξει ἄνευ αἰσθήσεως)· ὥστε τὰ ταύτης μέρη πρότερα ἢ πάντα ἢ ἔνια τοῦ συνόλου ζῴου . . . τὸ δὲ σῶμα καὶ τὸ τούτου μόρια ὕστερα ταύτης τῆς οὐσίας, καὶ διαιρεῖται εἰς ταῦτα ὡς εἰς ὕλην οὐχ ἡ οὐσία ἀλλὰ τὸ σύνολον. τοῦ μὲν οὖν συνόλου πρότερα ταῦτ' ἔστιν ὡς, ἔστι δ' ὡς οὔ· . . . ἔνια δ' ἅμα, ὅσα κύρια καὶ ἐν ᾧ πρώτῳ ὁ λόγος καὶ ἡ οὐσία, οἷον εἰ τοῦτο καρδία ἢ ἐγκέφαλος . . . ὁ δ' ἄνθρωπος καὶ ὁ ἵππος καὶ τὸ οὕτως ἐπὶ τῶν καθ' ἕκαστα, καθόλου δέ, οὐκ ἔστιν οὐσία, ἀλλὰ σύνολόν τι ἐκ τουδὶ τοῦ λόγου καὶ τησδὶ τῆς ὕλης ὡς καθόλου· καθ' ἕκαστον δ' ἐκ τῆς ἐσχάτης ὕλης ὁ Σωκράτης ἤδη ἐστιν. . .

To understand the meaning of the passage, we must consider the other *ἀπορία*, which is closely related to the first, namely are the parts always prior to the whole or not? For example, is an acute angle prior to a right angle? Evidently not, for in defining it, we make use of a right angle in our definition, saying it is less than a right angle. Hence the latter is prior. And yet in some cases the parts are prior, for example, animal is prior to man, for man presupposes animal, whereas animal does not presuppose man. This *ἀπορία* is solved in the same way as the first by distinguishing the different meanings of the word part. Parts of the matter are posterior to the whole, parts of the form are prior to the whole. This solution he illustrates in living beings. The soul is the form, hence the parts of the soul are prior to the *σύνολον*. But the body and its parts, as being matter, are posterior to the *οὐσία*. Some material parts, however, are prior to the *σύνολον* and others are simultaneous with it, as for example those material parts which are the seat of the soul, like the heart or the brain.

This passage as being an illustration in natural things of the rule concerning the priority of parts, which had just been illustrated in part in artificial things like acute angle and semicircle, is to be understood as referring not to the universal, but to the particular, and *ζῴων ψυχή* includes man as well as other animals. That it refers to the particular is proved by the fact that the treatment of *καθόλου* in line 28 is contrasted with it, and if it is the particular, there is no reason why it should refer to horse rather than to man, Aristotle prefers to take his illustrations from man. The reference

to καρδία and ἐγκέφαλος would also point in the same direction. That the soul is the ἐντελέχεια and οὐσία of man is an established fact in the De Anima. Hence in so far as the soul contains in it the principle of life, it would be part of the form, and hence part of the definition.

In the next passage, ὁ δ' ἄνθρωπος καὶ ὁ ἵππος κτλ., Aristotle is treating of the same living beings as before, but of the καθόλου. ἄνθρωπος καθόλου, he says, is not οὐσία, but a σύνολον composed of matter and form καθόλου. Now ἄνθρωπος καθόλου is not the genus, it means the universal man, and Aristotle says it is composed of the form of man as universal, and the matter of man as universal, hence it includes reason in a universal sense, whereas the genus would not. Besides, even if it were the genus, we could not prove from the fact that it is not οὐσία that it cannot form part of the definition. Let us recall Aristotle's solution of the first ἀπορία. The λόγος of the parts of οὐσία is a part of the λόγος of the whole. Now the καθόλου may be a part of οὐσία and yet not be itself οὐσία, and this is in fact Aristotle's view, that the universal is a τοιόνδε rather than a τόδε. Categ. 5, pag. 3 b 20 he says, τὸ δὲ εἶδος καὶ τὸ γένος περὶ οὐσίαν τὸ ποιόν ἀφορίζει. With this καθόλου Aristotle then contrasts once more the καθ' ἕκαστον. This, he says, is not composed of ὕλη καθόλου but of ἐσχάτη ὕλη, i. e. of a particular and definite ὕλη, namely the flesh and bones which he has. ἐσχάτη ὕλη does not include the principle of life. The latter is included in the ψυχή. ἐσχάτη in this case is contrasted with καθόλου and is equivalent to καθ' ἕκαστον. There are other instances in which the same use of ἔσχατος is found, thus Met. K 1, page 1059 b 26, πᾶς γὰρ λόγος καὶ πᾶσα ἐπιστήμη τῶν καθόλου καὶ οὐ τῶν ἐσχάτων. Nik. Eth. Z, 12, p. 1143 a 33, ἔστι δὲ τῶν καθ' ἕκαστα καὶ τῶν ἐσχάτων πάντα τὰ πρακτά, and many other instances given by Bonitz and Waitz. Neumark says (page 342 of his book): "Sokrates besteht nicht aus der Artform: Mensch (Das heißt aus einem Komplex von Formen, von den Urqualitäten angefangen bis zum Lebensprinzip, welche alle von dem höchsten Artprinzip: Mensch irgendwie eingeschlossen wären) und dem Urstoff, sondern aus der Form: Mensch schlechthin (das heißt aus dem Denkvermögen) und dem letzten Stoffe, der all jene notwendigen unteren Prinzipien bereits darstellt." But

these two alternatives do not exhaust the situation, man may consist of body and soul, body as matter, and soul as form, though the human soul, which is the form of man, includes the animal soul in it. Within the soul itself, i. e. within the form, we may again distinguish between the animal soul and the reason, and regard the former as standing to the latter in the relation of matter to form, and similarly we may go further and distinguish within the reason itself the passive intellect and the active intellect, and regard the former as standing in the relation of matter to the latter. This is exactly what Aristotle does in the fifth chapter of the third book of the De Anima, *ἐπεὶ δ' ὥσπερ ἐν ἁπάσῃ τῇ φύσει ἔστι τι τὸ μὲν ὕλη ἑκάστῳ γένει . . . ἕτερον δὲ τὸ αἴτιον καὶ ποιητικόν . . . ἀνάγκη καὶ ἐν τῇ ψυχῇ ὑπάρχειν ταύτας τὰς διαφοράς. καὶ ἔστιν ὁ μὲν τοιοῦτος νοῦς τῷ πάντα γίνεσθαι, ὁ δὲ τῷ πάντα ποιεῖν.* But this does not warrant us in relegating all except the active reason to matter, and exclude it from the definition. No. The definition of the form of man is everywhere in Aristotle *ζῷον λογικόν* or *ζῷον δίπουν*, i. e. the union of the genus and the species, though within this definition one of the parts may stand to the other in the relation of matter to form. The fact is that in chapter thirteen of Z, where the *καθόλου* is shown not to be *οὐσία*, Aristotle still thinks of the genus as forming part of the definition, even if not in itself *οὐσία*, 1038 b 30, *ὅλως δὲ συμβαίνει, εἰ ἔστιν οὐσία ὁ ἄνθρωπος καὶ ὅσα οὕτω λέγεται, μηθὲν τῶν ἐν τῷ λόγῳ εἶναι μηθενὸς οὐσίαν . . . λέγω δ' οἷον οὐκ εἶναί τι ζῷον παρὰ τὰ τινά οὐδ' ἄλλο τῶν ἐν τοῖς λόγοις οὐθέν.*

In particular chapter twelve deliberately includes the genus in the definition. When Aristotle says, 1037 b 13, *ἔστω γὰρ οὗτος* [sc. *ζῷον δίπουν*] *αὐτοῦ λόγος*, he is not apologizing for including *ζῷον*, but for the form of the definition as a whole, particularly for using *δίπουν* as the *εἶδος*, whereas it is only an *ἴδιον*. His meaning is that precision of definition is not necessary for the present argument, just as the geometer draws a figure which looks like a circle, and says, let this be a circle, *ἔστω οὗτος κύκλος*. It is not at all a question of two standpoints. Now throughout this chapter the genus is assumed to be in the definition; l. 29, *οὐθὲν γὰρ ἑτερόν ἐστιν ἐν τῷ ὁρισμῷ πλὴν τό τε πρῶτον λεγόμενον γένος καὶ αἱ διαφοραί.* 1038 a 3, *τοῖν δυοῖν δὲ τὸ μὲν*

διαφορὰ τὸ δὲ γένος, οἷον τοῦ ζῷον δίπουν τὸ μὲν ζῷον γένος, διαφορὰ δὲ θάτερον. l. 22 *ὅταν γὰρ εἴπῃ ζῷον ἔπτερον δίπουν. . .* l. 31 *οἷον τὸν τοῦ ἀνθρώπου, λέγων ζῷον δίπουν ἔπτερον.* But there is one passage in this chapter of which Neumark takes advantage, and understands it as teaching that the genus belongs to the matter and not to the form. This passage reads, ib. ll. 5 sqq. *εἰ οὖν τὸ γένος ἁπλῶς μὴ ἔστι παρὰ τὰ ὡς γένους εἴδη, ἢ εἰ ἔστι μὲν ὡς ὕλη δ' ἐστίν (ἡ μὲν γὰρ φωνὴ γένος καὶ ὕλη, αἱ δὲ διαφοραὶ τὰ εἴδη καὶ τὰ στοιχεῖα ἐκ ταύτης ποιοῦσιν), φανερὸν ὅτι ὁ ὁρισμός ἐστιν ὁ ἐκ τῶν διαφορῶν λόγος.* Now according to Neumark this statement is equivalent to saying that the genus belongs to the matter along with the body and is not to be taken into the definition, but this is not the meaning of the passage. The best proof that Aristotle does not intend to exclude the genus from the definition is that even after this remark, and after a similar remark, l. 19, *φανερὸν ὅτι ἡ τελευταία διαφορὰ ἡ οὐσία τοῦ πράγματος ἔσται καὶ ὁ ὁρισμός*, he still uses *ζῷον* as part of the definition in his illustrations (22), *ὅταν γὰρ εἴπῃ ζῷον ἔπτερον δίπουν* ... and (30) *εἴ τις μετατάξειε τοὺς τοιούτους ὁρισμούς, οἷον τὸν τοῦ ἀνθρώπου, λέγων ζῷον δίπουν ἔπτερον.*

The truth of the matter is that Aristotle is not relegating the genus to the matter in the sense that it belongs to the body, but in the sense in which I explained above. In fact this is the solution of the *ἀπορία*. The definition is one and not two, because the genus in it and the *εἶδος* are related as matter and form, which coalesce into one. The genus cannot therefore be excluded in reality from the definition, though it may be excluded verbally. The real definition is in the last *διαφορά*, just because the last *διαφορά* includes within it the genus; the genus has no existence outside of the *εἶδος*, it exists in the *εἶδος*, and naming the *εἶδος* you have already included the genus, not excluded it. This is the proper meaning of the passage, and the way in which it is understood by Alexander and Bonitz. Alexander says (p. 521, 10): *οὕτως τὴν ἀπορίαν λύσας . . . φανερὸν ὅτι ὁ ὁρισμός ἐστιν ὁ ἐκ τῶν διαφορῶν λόγος, ὡς εἰ ἔλεγεν ὅτι φανερόν ἐστιν ὅπως τὸ ζῷον πεζὸν δίπουν ἔν ἐστιν, ὅτι γένος ἐστὶ καὶ διαφορὰ ἤτοι ὕλη καὶ εἶδος. . . .*

In fact it is quite clear that the reason for omitting the genus is the same as that for omitting the proximate *διαφοραί*, and the

reason for the latter is not because they with the genus belong to the matter and have no place in the definition, but as Aristotle says, l. 20, *εἴπερ μὴ δεῖ πολλάκις ταὐτὰ λέγειν ἐν τοῖς ὅροις· περίεργον γὰρ· συμβαίνει δέ γε τοῦτο· ὅταν γὰρ εἴπῃ ζῷον ἔποπον δίπουν, οὐθὲν ἄλλο εἴρηκεν ἢ ζῷον πόδας ἔχον, δύο πόδας ἔχον.* It is purely a matter of expression. In fact the genus is not omitted.

Bonitz's words are, p. 344, "Quod autem in ipsa forma rei, quae per definitionem describitur, iterum materiam et formam distinguit, perinde est intelligendum ac si in anima, quamquam ea est *ἐντελέχεια* corporis organici, tamen in ea ipsa *δύναμιν* et *ἐνέργειαν* distinguit. Et quod hic quidem genus materiae locum habere, ultimam vero differentiam ipsam esse rei substantiam dicit, a 19, quum alibi genus potissimum idque magis quam differentias aptum esse dicat ad definiendum quid sit res, cf. ad 4 extr., potest ea sententiae diversitas quodammodo vel tolli, ita ut nulla sit, vel certe excusari; etenim primum quidem in definitione ponendum est genus ut habeant differentiae cui inhaereant, sed peculiaris rei natura maxime ultima differentia definitur".

Now as to lines 31—33 of chapter ten, about which Neumark is so indignant. I must first make an admission. It seemed to me at the time that Neumark's rendering (p. 342 note), "Das Einzelding besteht, etc." was meant to cover the entire passage, and that the word *μέρος* was translated by "Einzelding" as if it were *τὸ κατὰ μέρος*. That is why I disdained to go into particulars, and expressed my astonishment by using an exclamation mark. I see now that I was mistaken, and as I had no business to make an error of this kind, I herewith make a sincere apology for the exclamation mark. But this does not make Neumark's interpretation any the less untenable. The fact is, he still renders inaccurately the accepted meaning of the passage. The lines in question are the most harmless lines ever penned by Aristotle, they are merely a summing up of what was already stated by Aristotle before, and contain no new ideas. They have nothing to do with lines 27—31, which Alexander says are parenthetical (p. 509, 12 *ταῦτα μεταξὺ παρεμβὰς πάλιν ἐπανατρέχει ἐπὶ τὸν τῶν μερῶν καὶ τὸν τῶν ὅλων λόγον*). But it makes no difference whether 27—31 are parenthetical or not.

every one who can see things straight can have no doubt that the passage *μέρος μὲν οὖν κτλ.* is resumptive, and is equivalent to 1034 b 32 sq. *ἢ πολλαχῶς λέγεται τὸ μέρος . . . εἰ οὖν ἐστὶ τὸ μὲν ὕλη τὸ δ' εἶδος τὸ δ' ἐκ τούτων, καὶ οὐσία ἡ τε ὕλη καὶ τὸ εἶδος καὶ τὸ ἐκ τούτων, ἔστι μὲν ὡς καὶ ἡ ὕλη μέρος τινὸς λέγεται, ἔστι δ' ὡς οὔ, ἀλλ' ἐξ ὧν ὁ τοῦ εἴδους λόγος . . .* and 1035 b 11 sq. *ὥσθ' ὅσα μὲν μέρη ὡς ὕλη καὶ εἰς ἃ διαιρεῖται ὡς ὕλην ὕστερα· ὅσα δὲ ὡς τοῦ λόγον καὶ τῆς οὐσίας τῆς κατὰ τὸν λόγον πρότερα. . . .* Let us recall once more the *ἀπορία* with which the chapter begins, whether the *λόγος* of the parts of a thing must form a part of the *λόγος* of the thing. Not a single word in this *ἀπορία* must be ignored. Aristotle says the only way to solve this *ἀπορία* is by knowing what you mean by *μέρος*. *μέρος* of what? You say *μέρος* of the thing. But what do you mean by thing? Do you mean the matter of the thing, or the form of the thing, or the whole of the thing? Do you mean by *μέρος μέρος* of the matter of the thing, or *μέρος* of the form of the thing, or *μέρος* of the whole of the thing? Now the lines in question merely tell us once more, in order to resume the discussion, that when we speak of a part of a thing, we may mean a part of the form of the thing, or a part of the whole of the thing, or a part of the matter of the thing. This is all the lines in question mean, and the proper translation is neither the one Neumark suggests for Bonitz (p. 428 of his reply), nor the one he gives himself (429), but the following, which Bonitz gives, "Teile gibt es also sowohl von der Formbestimmung (unter Formbestimmung verstehe ich das Wesenswas) als von dem aus Form und Stoff Zusammengesetzten als von dem Stoffe selbst". There is no question here whether matter is or is not a part of the thing or of the definition. There is nothing at all said in these lines about definition. These lines merely classify the uses of *μέρος*. Matter is not called *μέρος*, but it is said that matter may have a *μέρος*. If the human body is the matter, half the body would be a *μέρος* of the matter, so would a finger or a leg. It therefore makes no difference what Aristotle means here by *ὕλη*. No one claims that he means here *πρώτη ὕλη*, he means in the case of man, his body, or flesh and blood. If Neumark realizes

this, he will realize that his entire discussion on pages 428—432 is irrelevant.

The *σύνολον* in these lines is the same *σύνολον* as is found elsewhere, and is described exactly as it is every where else (l. 29, *σύνολόν τι ἐκ τουδὶ τοῦ λόγου καὶ τησδὶ τῆς ὕλης*; ch. 11, 1037 a 30, *ἡ . . . οὐσία ἐστι τὸ εἶδος τὸ ἐνόν, ἐξ οὗ καὶ τῆς ὕλης ἡ σύνολος λέγεται οὐσία*). There are no doctrines on the nature of the definition to be derived from this sentence. The application of the analysis of *μέρος* as given in this sentence is found in the sequel, and that tells us again that only the parts of the form (*τὰ* [sc. *μέρη*] *τοῦ εἴδους μόνον*) are parts of the definition, not, as Neumark has it, page 430 of his reply, "Nur die Artformen für sich". As to Bonitz's interpolation I agree with Neumark that the words *καὶ τῆς ὕλης* are badly needed for two reasons. First, the word *αὐτῆς* is superfluous without them, and second, it will be noticed in the other two passages which I quoted above, viz. 1034 b 32 sqq. and 1035 b 11, either all three are given, matter, form, and the composite, or if one is left out, as in the second passage, it is the composite that is left out, not the matter, and the reason is easy to see. The solution of the *ἀπορία* depends upon whether we speak of a part of the matter, or a part of the form. A part of the *σύνολον* is really a part of the matter, as for example, brass, which Aristotle calls a part of the *σύνολον* 1035 a 6, *τοῦ μὲν συνόλου ἀνδριάντος μέρος ὁ χαλκός*. For these two reasons, leaving Asclepius aside, it is extremely likely that the second *καὶ τῆς οὐσίας* fell out by homoioteleuton (thanks to Neumark for the suggestion). But we must not forget that if it did fall out it must have done so very early, for not only are there no mss. containing it, but Alexander did not have it in his text either. This is very clear, for he is in the habit of quoting the actual words of Aristotle with no change at all, or a very slight change. Here he quotes them, *μέρος μὲν οὖν ἐστι καὶ τοῦ εἴδους ὥσπερ καὶ τοῦ συνόλου τοῦ ἐξ ὕλης καὶ εἴδους*. It is clear therefore that he did not have the additional words, and it is for this reason that Bonitz lays so much stress on the evidence of Asclepius. But what concerns us at present is that according to the accepted translation, which is the only correct one, there is no difference in reality whether the words in question are supplied or not. It is purely a question

of philology. Just as in 1035 b 11 sq. Aristotle left out in his enumeration the μέρος of the σύνολον, he might have left out here μέρος of the matter, letting the σύνολον stand for both itself and the matter. Neumark must have the additional words, which were not in the text of Alexander.

In reference to Neumark's interpretation of chapter eleven, I have not much to add to what I said in my original criticism, pages 469—470. The reader who has followed the preceding discussion of chapter ten will not be surprised to find that in chapter eleven Aristotle does not say anything which is opposed to chapter ten. Nay he will find that the words, 1037 a 5, δῆλον δὲ καὶ ὅτι ἡ μὲν ψυχὴ οὐσία ἡ πρώτη, τὸ δὲ σῶμα ὕλη, ὁ δ' ἄνθρωπος ἢ τὸ ζῷον τὸ ἐξ ἀμφοῖν ὡς καθόλου κτλ., agree with the passage in chapter ten, 1035 b 14 sq., beginning, ἐπεὶ δὲ ἡ ζῴων ψυχὴ . . . ἡ κατὰ τὸν λόγον οὐσία καὶ τὸ εἶδος καὶ τὸ τί ἦν εἶναι τῷ τοιῷδε σώματι κτλ., which was discussed above. He will see that in both these passages Aristotle speaks of the soul, including the "Lebensprinzip", as the οὐσία of ἄνθρωπος as well as of ζῷον, whether taken in the concrete or in the general sense. Cf. l. 9, ὥστερ τὸ καθόλου [τε] καὶ τὸ καθ' ἕκαστον and Alexander's remark ad loc. page 516, 2, εἰ δὲ ἁπλῶς ἡ ψυχὴ ἥδε καὶ σῶμα τόδε, τουτέστιν εἰ δέ τις τὴν τοῦ Σωκράτους ψυχὴν οὐκ εἶδος τοῦ Σωκράτους λέγει ἁπλῶς, ὡς ἔχει ἡ καθόλου ἀνθρωπεῖος ψυχὴ πρὸς τὸ καθόλου ἀνθρώπειον σῶμα, ἕξει καὶ ἡ καθ' ἕκαστα πρὸς τὸ καθ' ἕκαστον κτλ. This will show that the contrast between animal in general and the different species of animal, which Neumark finds expressed in chapter ten in the passages beginning line 14, ἐπεὶ δὲ ἡ ζῴων ψυχὴ κτλ. and line 27, ὁ δ' ἄνθρωπος καὶ ὁ ἵππος, does not exist. In both the soul is the οὐσία, and hence the subject of the definition. Furthermore in chapter eleven the contrast is not altogether between natural and artificial things as Neumark makes it. In the very beginning of the chapter Aristotle wants to indicate that it is sometimes difficult to decide whether certain parts of the thing are parts of its matter or parts of its form. To make this clear he takes an illustration from an artificial thing, a brass circle. Here he says there is no difficulty in deciding that brass belongs to the matter of the circle, and not to its form. The reason it is so easy to see this, is because

we actually see circles of other materials also, viz. stone and wood, which shows that the essence of circle is independent of brass. But in cases where the object never appears in different materials, but always in the same, we are apt to mistake the matter for form, as for example in man, flesh and bones are the only material in which man appears, yet it is clear that flesh and bones do not belong to the form, but to the matter, just as the brass of the circle would be none the less matter even if all circles were of brass. The moral of this remark is that we must be careful not to be misled by the constancy of the material of a given thing, and mistake it for form. On the other hand it would be just as mistaken to go to the other extreme, and because of the instances just cited, namely brass and stone in circle, and flesh and bones in man, which are undoubtedly matter, to relegate everything to matter which is not purely abstract and ideal, as some Pythagorean Platonists are wont to do. These say that in circle and triangle everything is matter except the fundamental number at the basis of these figures. Even such essential elements of circle and triangle as their linear form and their extension are relegated to matter and set alongside of brass and stone in circle, and flesh and bones in man. This, Aristotle thinks, is going too far, and is not legitimate, because it leads in the end to identifying all things, which is absurd. When further on in the chapter Aristotle argues that man is a sensible object and cannot exist (*ἐνδεχόμενον εἶναι* (27); *ὁρίσασθαι* (29) must be understood in the same sense, cf. Alexander a d l o c.) without sensible and functioning limbs, he is arguing still against these Platonists who believe in the existence of the Idea apart from matter. It will now be clear, I hope, that in chapter eleven Aristotle does not speak directly of "Lebensprinzip" at all, anymore than in chapter ten, or in chapters four and five, but that so far as it may be involved in the argument it is understood in all these chapters to belong to the form and not to the matter, and hence to be included in the real definition. All this, as the reader will see, is the exact opposite of the views of Neumark.

§ 27. **Chapter 12: —**

Here the matter becomes even more serious than before. Neumark seems to see that he is wrong, but he will not admit it, and in order to cover his mistakes he becomes positively disingenuous, and

resorts to his favorite method of throwing dust and mud, the former in the eyes of his reader, the latter at his opponent. His main excuse seems to be that he had no reference to that part of the chapter which I claim he misinterpreted. I say (page 470), "The last part of chapter twelve Neumark does not understand, and what he says of it (page 345) is inaccurate and meaningless". Neumark defends himself by saying (page 417), "Er sagt, ich hätte den letzten Teil des Kapitels nicht verstanden, aber ich gebe nur den Inhalt bis zum Schlusse von 3 an, und erkläre das übrige als für die Diskussion der Metaphysik irrelevant. H. war also nicht in der Lage, zu sehen, welchen Teil des Kapitels ich exzerpiere". Now let us see whether this is true. Neumark cites according to the paragraphs of the Paris edition of Didot, and says in the above quotation that he gives the contents of the chapter only to the end of paragraph three, i. e. to the words *τὸ μὲν ζῷον γένος, διαφορὰ δὲ θάτερον*, 1038 a 4. Following are the words in his book (page 345): "Aristoteles .... zitiert die ... Frage: Wie komme ich durch Einteilung dazu, zu sagen: 'Der Mensch ist ein zweifüßiges Lebewesen', und nicht vielmehr: 'Der Mensch ist ein Lebewesen und ein zweifüßiges Wesen'? Im Anschluß an die nähere Explizierung dieser Frage (1—3), geht dann Aristoteles auf das Verfahren der Definition durch Einteilung ein. Es besteht darin, stets den letzten Artunterschied herauszufinden, der zusammen mit dem Gattungsbegriff die Definition ausmacht. Den letzten Unterschied aber findet man am leichtesten, wenn man die Merkmale eines Einzeldings aufzählt, wie: 'Der Mensch ist ein zweifüßiges, füßiges Lebewesen'. Daran knüpft Aristoteles einige sprachliche Bemerkungen, um zuletzt darauf hinzuweisen, daß die Frage dieses Verfahrens für uns nicht so wichtig ist, da die logische Ordnung in der Sprache mit der Ordnung des Seins nicht notwendig übereinstimmen müsse. Unser Problem erfährt somit schließlich nur eine geringe Komplikation." Then in the foot note 2: "3—9. Das ist der Sinn des Schlußsatzes *τάξις δ' οὐκ ἔστιν. . . .*"

Now apart from the content of this quotation, it is clear from Neumark's own references that the part he discusses is exactly the last part of the chapter from paragraph 4 on (Didot's edition), i. e. lines 5 sqq. of Bekker. For the words, "Geht dann Aristoteles", seem to refer to that which follows the unfolding of the

question in paragraphs 1—3, and at the end of the quotation he refers in a foot note to paragraphs 3—9. But we need not lay so much weight perhaps on external evidence. Let us examine the contents of the above passage. He says Aristotle examines the process of definition by division. True, this begins in paragraph 3, 1037 b 27—1038 a 4. Neumark continues, It (the process of division) consists in always finding the last specific difference, which together with the genus makes the definition. Now the term, "last difference", does not occur in paragraph 3. This does not occur until later, paragraph 5, 1038 a 9, *ἀλλὰ μὴν καὶ δεῖ γε διαιρεῖσθαι τὴν τῆς διαφορᾶς διαφοράν κτλ.*, and particularly paragraph 6, ib. 16, *καὶ οὕτως ἀεὶ βούλεται βαδίζειν ἕως ἂν ἔλθῃ εἰς τὰ ἀδιάφορα*, and not until paragraph 7, ib. 19, do we have the term *τελευταία διαφορά*. Neumark continues, "But the last difference may be found most easily by enumerating the attributes of the thing, for example, 'Man is a two-footed footed animal'". This is the sentence to which I objected, and said it was both inaccurate and meaningless. It is inaccurate because Aristotle nowhere in the chapter says, that the last difference may be found most easily by enumerating the attributes of the thing. All the discussion about the last difference occurs in the latter part of the chapter, paragraph 5, 1038 a 9 sqq., and there Aristotle tells us that we must be very careful how we subdivide our difference into its succeeding differences. The last difference is not found most easily by just enumerating the attributes of the thing. Aristotle says distinctly that you must not divide *ὑπόπουν* into *πτερωτόν* and *ἄπτερον*, but into *σχιζόπουν* and *ἄσχιστον*, and later again that the last difference can be gotten at only by dividing each difference into its own succeeding differences, if you divide it any way, as for example if you divide *ὑπόπουν* into *λευκόν* and *μέλαν*, you will get no last difference, and no unity in the definition. This will show too why I called Neumark's statement meaningless, for it leads us nowhere. A thing has an infinite number of attributes. Enumerating the attributes, if we are not told how to do it, is a stupid process, which may never give us the last difference, and we should never know it if we had it. That is why I said about Neumark's remark, "To leave it out would have been better",

and also that Aristotle "says something quite different, and more worth saying". But the climax of misapprehension and topsy-turviness is reached when Neumark illustrates the wise remark just discussed by the example, "Man is a two-footed footed animal!" Now in the first place where did Neumark get this example? He claims that the sentence quoted above, containing this example, which I criticised, is concerned with paragraph 3, but the example is found in paragraph 9. In paragraph 3 no such example is given. The example given there is *ζῷον δίπουν ἄπτερον*. Did Neumark's eye wander by accident from paragraph 3, with which alone he was concerned, to paragraph 9 and the other paragraphs in its neighborhood, in which there is really a discussion of the last difference? It would really seem as if his attention was somewhere else when he wrote that sentence, for the example is the most unfortunate that Neumark or anybody else could have chosen to illustrate the process of finding the last difference. It is really a good example to show that "enumerating the attributes" is a very poor way of finding the last difference, for in saying "Man is a two-footed footed animal", we are "enumerating the attributes" of animal, to be sure, but we are going backwards. After two-footed, if this is not the last difference, and in fact it is not, for a chicken is also a two-footed animal, the proper division would be *πτεροτόν* and *ἄπτερον*, winged and wingless, of which *ἄπτερον* is the one we want. Aristotle does use *ζῷον δίπουν ὑπόπουν* as an illustration in connection with the last difference. But how does he use it? He says the last difference includes all the differences preceding it, and they need not be named in the definition, and this is evident if we transpose the terms in the definition of man, and instead of saying *ζῷον ὑπόπουν δίπουν* we say *ζῷον δίπουν ὑπόπουν*. We see now that *ὑπόπουν* after *δίπουν* is unnecessary, for one cannot have two feet without having feet. But there is no order in *οὐσία*, *οὐσία* has no prior or posterior within it, hence the attribute *ὑπόπουν* is just as superfluous before *δίπουν* as it is evidently after *δίπουν*.

Now let the authorities, Alexander and Bonitz, have the floor, to remove the last vestige of a doubt, if there is such in any body's mind, that Neumark is wide of the mark in his entire understanding of the chapter. This will at the same time serve the purpose of ans-

wering some of Neumark's criticisms of my mode of conceiving the argument of Aristotle.

Alexander, p. 522, 30, *τὸ δὲ τὸν ὁρισμὸν ἐκ τοῦ γένους εἶναι καὶ τῆς τελευταίας διαφορᾶς* [this comes long after paragraph 3] *δῆλον ἂν εἴη, φησι, καὶ ἂν τις μετατάξῃ τοὺς τοιούτους ὁρισμούς, οἷον τὸν τοῦ ἀνθρώπου λέγων ζῷον δίπουν ὑπόπουν· περίεργον γαρ τὸ ὑπόπουν τοῦ δίποδος λεχθέντος· ἐν γὰρ τῷ δίποδι ἔνεστι τὸ ὑπόπουν. ἵνα δὲ μή τις λέγῃ ὅτι διὰ τὸ δεῖν τάξιν τινα ἔχειν τὰ ἐν τῷ ὁρισμῷ καὶ τὸ μὲν δεῖν πρῶτον τάττεσθαι τὸ δὲ μετὰ τοῦτο καὶ ἑξῆς, ἐπὶ τούτῳ συνέβη τὸ περίεργον, ἐπήγαγε τὸ τάξις δ' οὐκ ἔστιν ἐν τῇ οὐσίᾳ, οὐδὲ διὰ τοῦτο συνέβη τὸ ἄλογον . . . ἀλλ' ὅτι ἦρκει ἡ τελευταία διαφορὰ μετὰ τοῦ γένους εἰς τὸ εἶδος καὶ τὴν οὐσίαν, καὶ οὐκ ἔδει τὸ ὑπόπουν παραλήψεσθαι.*

Bonitz, p. 346: "Superfluum esse, alias praeterea adsciscere, facile apparet (*δῆλον δ' ἂν εἴη κτλ.* a 30), si quis notas notionis in alium transposuerit ordinem, veluti non *ζῷον ὑπόπουν δίπουν* sed *ζῷον δίπουν ὑπόπουν*. Atqui ita transponere notas licet, quoniam *τάξις οὐκ ἔστιν ἐν τῇ οὐσίᾳ* a 33. In inveniendа quidem notione certo quodam ordine a summo genere ad inferiora descendendum est... ad ipsam notionem definiendam non pertinet illud dignitatis discrimen, ut unum prius sit alterum posterius."

Neumark's other arguments in connection with the place of the genus in the definition I have already answered in discussing chapters ten and eleven. There is only one other remark I wish to make in this connection, which will also apply to many other passages in Neumark's reply, namely that I wish to deny most absolutely any intention of supressing words or phrases or sentences in quoting the text of Aristotle or of Neumark's book for the purpose of making my criticisms plausible. I would be the first to regard such a process as most contemptible and unworthy of a scholar. Whenever I omitted anything, and in the nature of the case I had to omit a good deal, it was because I considered it unessential, and if Neumark insists on its importance, it is because of his misunderstanding, or else it is merely to throw dust.

The passage H 3, p. 1043 b 17, *ποιεῖται τόδε, γίγνεται δὲ τὸ ἐκ τούτων*, is not important enough to wrangle about. It seems to me that the two expressions are identical in construction,

that just as *τὸ ἐκ τούτων* is subject of *γίγνεται* so is *τόδε* subject of *ποιεῖται*, and the thought is also the same except that one expression refers to *ποίησις*, artificial production, the other to natural *γένεσις*, and the two expressions correspond to the two verbs *ποιεῖ* and *γεννᾷ* immediately preceding, *τὸ εἶδος οὐθεὶς ποιεῖ οὐδὲ γεννᾷ*.

§ 28. **H. 4, p. 1044 a 20: —**

γίγονται δὲ πλείους ὕλαι τοῦ αὐτοῦ. Here again Neumark's unwonted sensitiveness to Greek grammar has played him false. I agree that one must be sensitive to the niceties of language, if one undertakes to interpret an author, especially if one ventures to oppose the best authorities, but one must be quite sure that one has such a sense before relying on it and speaking in its name. Now in the present instance I maintain just as stoutly as Neumark that the phrase above quoted can have only o n e of the two meanings in dispute, but this meaning is not the one for which Neumark is fighting.

To begin with, and leaving all context aside the phrase *ὕλη τοῦ ᾱ*, the *ὕλη* of a, in Greek or in English, or in any other language, means most naturally the matter at the basis of the object a. Thus brass is the *ὕλη* of the *ἀνδριάς*, *ὕλη τοῦ ἀνδριάντος*, i. e. the statue h a s the *ὕλη* brass. Hence *γίγονται πλείους ὕλαι τοῦ αὐτοῦ* means also there are many matters of the same thing, i. e. the same thing may have many matters. The term *ὕλη* is always used as the matter which is at the basis of a product, and not as coming from anything. When Aristotle wishes to express genesis of a thing out of something he does not use *ὕλη* for the thing which arises, but for the thing f r o m which the thing comes, and not the genitive of the thing from which anything comes but the preposition *ἐκ* with the genitive. All this can be illustrated by any number of quotations, but there is no need of going beyond the present chapter. *ἐκ τοῦ αὐτοῦ πάντα πρώτου* means all things come f r o m the same thing, as their *ὕλη*. *ἴσως δὲ ταῦτα ἐκ τοῦ αὐτοῦ* means that *γλυκέα*, *λιπαρά*, *πικρά*, come f r o m the same *ὕλη*. *φλέγμα ἐκ τοῦ λιπαροῦ καὶ γλυκέος . . . τὸ λιπαρὸν ἐκ τοῦ γλυκέος, ἐκ δὲ χολῆς τῷ ἀναλύεσθαι . . . διχῶς γὰρ τοδ' ἐκ τοῦδε . . . ἐκ ξύλου καὶ κιβωτὸς καὶ κλίνη . . . πρίων οὐκ ἄν*

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γένοιτο ἐκ ξύλου . . . οὐ γὰρ ποιήσει πρίονα ἐξ ἰρίου ἢ ξύλου . . . ἐνδέχεται ἐξ ἄλλης ὕλης ποιῆσαι.

On the other hand *ἔστι τις οἰκεία ἑκάστου* means there is a proper or peculiar matter f o r each thing, not it comes f r o m each thing. *φλέγματός ἐστι πρώτη ὕλη τὰ γλυκέα* means that the sweet is the *ὕλη* o f *φλέγμα*, not that it comes f r o m *φλεγμα*; *χολῆς δὲ τὰ πικρά* is another example. *ἐνίων δ' ἑτέρα ἡ ὕλη* means that some things h a v e a different *ὕλη*, not that a different *ὕλη* comes f r o m some things. So here *γίγνονται δὲ πλείους ὕλαι τοῦ αὐτοῦ* means there are several matters of the same thing, i. e. the same thing has more than one matter, *ὅταν θατέρου ἡ ἑτέρα ᾖ*, when one of these several matters is the matter of the other. So much for the pure philology of the thing. Surely Neumark was not misled by the word *γίγνονται*, as if it must mean many matters a r i s e, for he could not have forgotten what he said of me for insisting that *ἐγίγνετο* in the phrase *οὐδ' ἄν ποτε . . . ἐγίγνετο τόδε τι* must mean "would b e c o m e", and not "would b e". On that occasion Neumark was kind enough to say, page 410, "Das hat er (sc. H.) seiner äußerst mangelhaften Kenntnis des Griechischen zu verdanken, *γίγνομαι* heißt beides".

If linguistic analysis has thus shown us what the phrase would mean naturally, the context leaves no further doubt possible that the correct meaning is as I gave it. Aristotle begins by making the statement that even though ultimately there is one prime matter from which all things come (this is an established fact now with Aristotle, which he does not have to prove, and in fact does not prove here, or say anything further about it in this chapter), still every thing has its own proper matter, and he gives an example, phlegm has as its proper matter the sweet or the fat, gall has as its proper matter the bitter, or something else of the sort. But this does not militate against the established fact of one primary matter for all things, for these various proper matters just mentioned come from the same matter ultimately ["*ἴσως* non dubitantis est, sed modeste asseverantis" — Bonitz ad A, 5, 987 a 26]. Now he says some thing else. Not only has a thing its proper matter but there may be several proper matters of the same thing, not simultaneously, however, but so that one of these is the matter of the other, thus both the fat and the sweet are matters of phlegm, but in such a way that the sweet

is the matter of the fat. Phlegm may in fact still have a third matter, namely gall, but this not in the regular progress of nature, for gall is ahead of phlegm. Gall can be said to be the ὕλη of phlegm in an indirect way, by first being resolved into the πρώτη ὕλη, and then in the regular progress of nature pass through the sweet and the fat, and finally become phlegm. Now comes still a third point, namely the same matter may become the material of different things, if the efficient cause is different. Wood may be the matter of a chest as well as of a bed, the art is different in the two cases. In some cases this is impossible, for example a saw cannot be made out of wood or out of wool. It needs a different matter from a bed or a garment. When the same product can be made from more than one material, the efficient cause, in the sense of the art, must be the same. For when both the matter is different and the art is different, the product too would be different.

The matter is quite clear now. Aristotle is not at all trying to prove at this late hour that there is such a thing as a prime matter for all things, he is speaking here of the qualifications of this doctrine, which, however, are not incompatible with it. Neumark, however, has no confidence either in my Greek or in my understanding, I will therefore call in as witnesses such reliable persons as Alexander and Bonitz. I shall first quote Bonitz's German translation, which reads, "Mehrere Stoffe desselben Dinges ergeben sich dann, wenn der eine der Stoff des andern ist".

Alexander, p. 556, 16: *καίτοι δὲ εἰ καὶ ἔστιν ἑκάστου οἰκεία τις ὕλη, ὅμως συμβαίνει πλείους ὕλας εἶναι τοῦ αὐτοῦ, ὅταν ἔστι τῆς ὕλης ὕλη, οἷον εἰ ἐκ τοῦ γλυκέος ἐστὶ τὸ λιπαρόν, ἐκ δὲ τοῦ λιπαροῦ τὸ φλέγμα, τοῦ φλέγματός εἰσιν ὕλαι δύο, τὸ μὲν λιπαρὸν προσεχής, τὸ δὲ γλυκὺ πορρωτέρα.*

Bonitz, Commentary p. 371, "Sed etiam peculiares materiae plures possunt eiusdem rei esse..." In view of all this what shall a serious student think of Neumark's judgment, and in particular of his intellectual honesty and common courtesy? It is conceivable that a person may be mistaken, and it is conceivable also that one may be so blinded by preconceived notions as to refuse to listen to reason. But when one points out an error, it is, to say the least, the duty of the person so charged to consult authorities, and in case they prove to be against him and he can nevertheless not accept

their views, deliberately and frankly to say in defending himself that even though the authorities are all on the other side, he must nevertheless differ with them, and give his reasons. We have seen in the present instance that the very best authorities agree with my translation and not with Neumark's. I have not Schwegler by me, but have not the least doubt that he and Kirchmann and every other translation or commentary worth its salt agree with Alexander and Bonitz. Now what does Neumark do when I call his attention to the error and suggest the correction? I will quote his words, for I think this conduct on the part of one who pretends to scholarship most unworthy. These are his words (p. 420): "Zur Stelle VII, 3, 2, *γίγονται δὲ πλείους ὕλαι τοῦ αὐτοῦ* . . . übersetze ich Seite 353: 'Es können nämlich viele (verschiedene Natur-) Stoffe aus einem und demselben entstehen, sofern einer aus dem andern wird . . .' H. orakelt: This means rather that the same thing may come from more than one matter, as is also clear from the examples. Das ist barer Unsinn. Gesetzt die Beispiele sprächen für den Gedanken, den H. hier gefunden zu haben glaubt, wie in aller Welt will er dies in diesen Satz hineinbringen? [Then comes a linguistic (save the mark!) argument, and then] Wenn die beigebrachten Beispiele wirklich für das Gegenteil sprächen, dann hätten wir es mit einer hoffnungslos schwierigen Stelle zu tun, was uns aber noch keineswegs gestatten würde, zu einer Übersetzung unsere Zuflucht zu nehmen, für die ein Tertianer gewiß sitzen bleiben müßte." So Bonitz and Alexander had not the knowledge of Greek grammar possessed by a "Tertianer"! And David Neumark surpasses them both! Again, page 421, "Aber davon zu sprechen, daß diese unmögliche Übersetzung sich aus dem Zusammenhang ergibt, ist die reine Verständnislosigkeit. H. hätte nur . . . und jedem, auch dem des Griechischen unkundigen Leser, wäre es sofort klar geworden, daß H. sich auf dem Holzwege befindet".

Only one of two alternatives is possible, either Neumark did not consult any authorities, and in that case what right, moral or scientific, has he to abuse one who did consult them? Or Neumark did look up the authorities. In that case he found they were on my side. What name shall we then give to such disingenuous modes of literary discussion?

§ 29. **H. 6, p. 1045 a 30 sq.: —**

τί οὖν τούτου αἴτιον τοῦ τὸ δυνάμει ὂν ἐνεργείᾳ εἶναι, παρὰ τὸ ποιῆσαν, ἐν ὅσοις ἐστὶ γένεσις; οὐθὲν γάρ ἐστιν αἴτιον ἕτερον τοῦ τὴν δυνάμει σφαῖραν ἐνεργείᾳ εἶναι σφαῖραν, ἀλλὰ τοῦτ' ἦν τὸ τί ἦν εἶναι ἑκατέρῳ.

To understand this we must not forget that the *ἀπορία* here is, what is it that makes the definition a unity? Aristotle tries to solve the problem as begun in Z 12, by reference to the concepts matter and form, or potentiality and actuality. In order to make his solution clear Aristotle distinguishes between the question of unity, and the related but different question, what it is that causes the potential object to become an actual object. The latter question is answered by Aristotle's statement that there is no other cause except the efficient cause why a potential sphere becomes an actual sphere. The efficient cause is in this case an external agent, the artisan, as Alexander says, page 561, 35, *τὸ δὴ* [*ἕν*] *ποιῆσαν τὴν δυνάμει οὖσαν ὕλην τόδε τι ἐνεργείᾳ γενέσθαι ὁ ἦν δυνάμει, οἷον τὸν χαλκὸν δυνάμει ὄντα σφαῖραν ἐνεργείᾳ γενέσθαι σφαῖραν ὁ τεχνίτης ἐστὶ καὶ οὐδὲν ἕτερον* [*ἕν* om. S: del. Bonitz]. Our question is different, we want to know what it is that makes the unity of the potential and actual, of matter and form. The answer to this is, there is no need of looking for such a cause, the cause lies in the nature of potential and actual respectively. The *τί ἦν εἶναι* of each is such that when the form joins the matter the two form a unit. The fault with Neumark is that he does not distinguish between these two questions, nay, he purposely identifies them in order to make form in the Metaphysics the principle of becoming in contradistinction from the Physics, where *στέρησις* is according to him the motive principle. I have already given my own view of this matter in a former discussion. My interpretation of these lines is based upon Bonitz. Alexander understands the last words somewhat differently, referring *ἑκατέρῳ* not to potential and actual, but to "man" and "sphere", the examples which Aristotle uses, and not being quite certain in the interpretation of the words *ἀλλὰ τοῦτ' ἦν τὸ τί ἦν εἶναι ἑκατέρῳ*. and to me not very clear. Bonitz's German translation of the lines quoted at the head of this discussion reads: "Dafür nun, daß das

dem Vermögen nach seiende der Wirklichkeit nach ist, ist da, wo ein Werden stattfindet, nichts anderes als das Hervorbringende Ursache. Denn dafür, daß die Kugel dem Vermögen nach Kugel in Wirklichkeit ist, gibt es keine andere Ursache, sondern dies war eben das Wesenswas für ein jedes von beiden."

His commentary page 375 reads: "Omittenda igitur Platonica explicandi ratio ... et ea utendum distinctione, de qua quummaxime disputamus..., materiae et formae; eam si adhibuerimus distinctionem, omnis et difficultas et dubitatio evanuit... Etenim in rebus singulis et concretis, quae fieri possunt et interire, a 31, ut coeat cum materia forma, non alia quaerenda est causa nisi causa motrix, *παρὰ τὸ ποιῆσαι* a 31, b 22 (cf. phys. III 2, 202 a 7: *ἡ κίνησις ἐντελέχεια τοῦ κινητοῦ, ἢ κινητόν*); unitas ipsa materiae et formae ne eget quidem ulla explicatione, *ἀλλὰ τοῦτ' ἦν τὸ τί ἦν εἶναι ἑκατέρῳ* (int. *τῇ ὕλῃ καὶ τῇ μορφῇ*) a 33, i. e. materiae sive potentiae natura in eo cernitur, ut ad formam et actum transeat, formae vicissim et actus ea est natura, ut materiam definiat vel potentiam compleat".

§ 30. **ib. 35:** —

> *ἔστι δὲ τῆς ὕλης ἡ μὲν νοητὴ ἡ δ' αἰσθητή, καὶ ἀεὶ τοῦ λόγου τὸ μὲν ὕλη τὸ δ' ἐνέργειά ἐστιν, οἷον ὁ κύκλος σχῆμα ἐπίπεδον.*

In these words we have the conclusion of the solution of the *ἀπορία*, viz. what it is that makes the definition one. What came before had reference to the concrete thing, consisting of matter and form in the true sense of those terms, which Aristotle used as an illustration to show that matter and form always constitute a unity by their very nature. Now he applies the results of the illustration to the definition, which in reality contains the form only, but within which the genus stands to the species in the relation of matter to form, and hence is a unit. As an example of a definition he now chooses instead of *ζῷον δίπουν* the definition of circle, *σχῆμα ἐπίπεδον*. Now the reader of Aristotle who knows any thing at all about geometry, knows exactly what is meant by *σχῆμα ἐπίπεδον*, and knows at the same time

that it is not an exact or complete definition of circle, any more than *ζῷον δίπουν* is an exact or complete definition of man. Aristotle made his apology once in Z 12 for *ζῷον δίπουν*, and the intelligent reader will apply the same apology to *σχῆμα ἐπίπεδον*, viz. *ἔστω γὰρ οὗτος αὐτοῦ λόγος. σχῆμα ἐπίπεδον* means "plane figure", in German "ebene Figur". The definitions of "plane" and "eben" are the same for Aristotle and Eudoxus and Hippocrates and Euclid and ordinary elementary geometry to-day. If we look upon *σχῆμα ἐπίπεδον* as an incomplete definition, all goes smoothly *σχῆμα* is the *πρῶτον γένος* like *ζῷον*, and *ἐπίπεδον* is a difference like *δίπουν*, though not the last difference, and while *σχῆμα ἐπίπεδον* includes all other plane figures beside circle, as *ζῷον δίπουν* includes all two-footed animals beside man, this looseness does not matter for the present argument. *σχῆμα* does stand in the relation of matter to *ἐπίπεδον*, for *σχῆμα* is potentially any one of many figures, *ἐπίπεδον* limits *σχῆμα* to plane figures, and in so far actualizes it. Now Neumark's mistake in the matter was that not knowing that *σχῆμα ἐπίπεδον* is a technical phrase in geometry, the meaning of which is quite definite, he took it for a complete definition of circle, thinking the context called for such, and naturally the blunders followed. Neumark had to find in *ἐπίπεδον* the concept of circle, which is that all the points of the circumference are equidistant from the centre. But *ἐπίπεδον*, whether as noun or adjective, never has that meaning. Neumark might have seen this from the very passage in the Rhetoric III, 6, which he quotes (page 425) *τὸ λόγῳ χρῆσθαι ἀντὶ ὀνόματος, οἷον μὴ κύκλον, ἀλλ' ἐπίπεδον τοῦ ἐκ τοῦ μέσου ἴσον ...*, which shows that to get the definition of circle, *ἐπίπεδον* is not sufficient, you have to add *τὸ ἐκ τοῦ μέσου ἴσον*. But Neumark is so blinded by the desire to hold on to his blunders that he exclaims triumphantly: "Also beinahe wörtlich meine Definition", as if I objected to his definition of circle. The definition of circle is found in every school boy's text book, why should I object? I objected to Neumark's misunderstanding of *ἐπίπεδον*, and the passage of the Rhetoric shows I am right and Neumark is wrong. *τὸ ἐκ τοῦ μέσου ἴσον* is not a definition of *ἐπίπεδον*, it is a qualification of it, adding the peculiar concept of circle, which *ἐπίπεδον* alone does not contain, except as any other genus contains potentially all its species. It

is extremely difficult to hold one's patience in discussing this matter. Neumark's "argument" on pages 422—427 of his reply is the most irrelevant and absurd bit of writing I have ever had the privilege of reading, and this without exaggeration. And all to what end? Simply because Neumark will not admit that he made a blunder. If I had known that the adage, "a hint to the wise is sufficient", does not apply to Neumark, I should surely not have contented myself with such a hint in the conclusion of my criticism. But how was I to know? I thought that after the hint Neumark would consult authorities or inquire of those who know, and find the truth and his error. But he did nothing of the sort. His mind was bent on maintaining his ground by fair means or foul. To be sure he could not in this case consult the commentators, such as Alexander and Bonitz, for he would not find a word there on the subject, and naturally so, for there is no difficulty. Every reader of Aristotle is supposed to be familiar with the elements of geometry and its ordinary concepts. But he might have inquired. Neumark, however, prefers to follow a different method, a favorite method of his. He abuses his opponent. In the present instance he indulges in the art of guessing as to how I came to say what I did, and why I did not say more. The real reason does not occur to him, for it would be very uncomplimentary to his self-confidence and overweening pride. So he guesses that — well I think I had better quote his own words, the insinuations are simply indecent, and unworthy of a scholar. This is what he says page 423: "Ferner: H. nimmt gar keine Stellung zu meiner Interpretation der Stelle, warum?... Es scheint sich so zu verhalten: H. fand in der von ihm benutzten Übersetzung (wo er auch das Euklides-Zitat gefunden haben mag; s. w. u.) eine von der meinigen abweichende Interpretation der Stelle. Genau, worum es sich handelt, und worin die Differenz besteht, wußte er offenbar nicht, auf den Fund verzichten wollte er nicht, er stilisierte daher seinen Angriff so unbestimmt als möglich. Er will sich nach keiner Richtung hin fest engagieren. Alles bleibt hübsch offen. Und sollte sich Neumark, so dachte sich offenbar H., endlich entschließen, diese 'Kritik' einer Erwiderung zu würdigen, so werde er schon aus der Antwort entnehmen können, worum es sich eigentlich handelt, dann werde er schon lavieren können. Er hat sich geirrt. In dem

wenigen, das er gewagt hat, hat er zur Genüge bewiesen, daß er wie ein Blinder im Dunklen herumtastet."

These insinuations are really too contemptible to deserve an answer. But I shall answer them. I did not either in this passage or in any other depend upon translations, and used them either not at all, or very sparingly. I did use very diligently the original text of Aristotle and the commentaries of Alexander, Simplicius, and Bonitz. Now and then I also consulted Zeller, von Hertling, Baeumker, Schwegler, Philoponus, Themistius, etc. If Neumark instead of using three translations had consulted the Greek commentators and Bonitz and Schwegler diligently and modestly, he would not have gotten into trouble. In the present passage I used no translation whatsoever, and did not find the Euclid citation anywhere outside of Euclid, nor did I see any reference to it anywhere. The reason I cited Euclid, I could have proved my point from Aristotle just as well, is because I wanted to make it clear that the terms *σχῆμα ἐπίπεδον* are used here in their technical mathematical sense, and do not allow of being twisted out of their definite meaning. That *σχῆμα ἐπίπεδον* does not represent the definition of circle is clear from the examples which Neumark himself has collected. Thus in M 4, p. 1079 b 5, we read *οἷον ἐπ' αὐτὸν τὸν κύκλον σχῆμα ἐπίπεδον καὶ τὰ λοιπὰ μέρη τοῦ λόγου*. Strangely (?) enough Neumark omitted the spaced words, which show that *σχῆμα ἐπίπεδον* requires some more elements to make it a definition of a circle. Alexander ad loc. supplies the parts which are needed, *σχῆμα ἐπίπεδον, ὑπὸ μιᾶς γραμμῆς περιεχόμενον, πρὸς ἣν ἀφ' ἑνὸς τῶν ἐντὸς τοῦ κύκλου σημείων πᾶσαι αἱ προσπίπτουσαι ἴσαι ἀλλήλαις εἰσίν*. This should have shown Neumark that his description of "eben bleibt" [I will add the word "bleibt", if Neumark thinks it will help him. I did not omit it intentionally, because it is quite indifferent to my argument whether it is there or not], "d. h. sich in eine Linie schließt, an der jeder Punkt von einem gegebenen Punkte innerhalb der Umschließung gleich weit entfernt ist", is drawn from his own imagination. *ἐπίπεδον* never has that meaning. Again the close of the same chapter, *ὥσπερ τὸ ἐπίπεδον φύσιν τινα ἢ πάσιν ἐνυπάρχει τοῖς εἴδεσιν ὡς γένος*, shows clearly that *ἐπίπεδον* cannot be the last difference or species of circle. To these

examples given by Neumark himself may be added the passage in De Caelo, II, 4, p. 286 b 13 sq., *ἅπαν δὴ σχῆμα ἐπίπεδον ἢ εὐθύγραμμόν ἐστιν ἢ περιφερόγραμμον, καὶ τὸ μὲν εὐθύγραμμον ὑπὸ πλειόνων περιέχεται γραμμῶν, τὸ δὲ περιφερόγραμμον ὑπὸ μιᾶς. ἐπεὶ δὲ πρότερον τῇ φύσει ἐν ἑκάστῳ γένει τὸ ἓν τῶν πολλῶν καὶ τὸ ἁπλοῦν τῶν συνθέτων, πρῶτον ἂν εἴη τῶν ἐπιπέδων σχημάτων ὁ κύκλος.* It is quite clear now that Aristotle uses the phrase *σχῆμα ἐπίπεδον* in the same sense as Euclid and every body else. The only conclusion to be drawn then is that in the present passage Aristotle is using a loose description in place of a definition, and all Neumark's casuistry is quite useless.

§ 31. I hope I have now fully justified my original criticism of Neumark's Aristotelian chapter in the first volume of his history of Jewish Philosophy, if there was a doubt hitherto in the minds of those able to judge. That Neumark cannot take objective criticism gracefully and must needs reduce the matter to the low level of personal abuse and mean insinuation is to be regretted. But since he has forced me to go into the subject at such great length, and once more to make a study of the parts of his book involved, I think I am entitled to tell him a few plain truths, not at all in a spirit of bravado or of personal triumph, but in a serious and objective manner. I shall try my best not to exaggerate. The chapter in question is a failure. This I have proved abundantly. But apart from that it has no place in his book. If Neumark had original views to propound on matter and form in Aristotle, his book on Jewish philosophy was not the place for it, and his manner of presentation not the proper one. No Aristotelian, I mean scholars like Diels, Baeumker, von Arnim, Rodier, to speak of living men only, looks for critical interpretations of Aristotle in a history of Jewish medieval philosophy. On the other hand the ordinary student or reader of Jewish philosophy knows his Aristotle, if he knows him, chiefly at second hand, and has not the time to make a deep study of the sources. Neumark himself must know that, for he himself did not find time to study the Greek commentators. His views on Aristotle and his original interpretations he should have discussed critically and in detail in connection with the Greek text and with direct and constant reference to the ancient and modern commentators, from whom as I show he differs radically. This should have been

contributed to a periodical like the "Archiv", or published in book form under a title which would have called the attention of specialists to its existence. Neumark might then have had the benefit of the opinions of these men. On the other hand for the readers and students of his book what was needed was not a translation and lengthy discussions of selected passages from the Physics and Metaphysics of Aristotle, but a summary view of Neumark's results in a clear and concise manner with a reference to the technical study for verification. As it is, the chapter in question is a misfit. The reader interested in Jewish philosophy is quite bewildered and actually repelled. This is due to a great extent to the method Neumark has chosen for presenting his Aristotelian views, though not a little of the trouble is also to be ascribed to Neumark's style in general. He lacks clearness of thought, perspicuity of style and conciseness of exposition, not to speak of his faulty and unreliable judgment. He possesses a stupendous amount of erudition, and a measure of originality and insight, but he lacks the crowning virtue of the true scholar, modesty, and wants to grasp too much. If he would only submit modestly to the guidance of such competent leaders in the study of Aristotle as I mentioned time and again in the course of this article, instead of hankering for original views, and should continue this process of training for several years, he would be the first to retract his unfortunate chapter.

The discussion is now finished so far as I am concerned. I shall not reply to any further communications of Neumark on this subject. I hope, however, that those readers of the "Archiv" who have followed this discussion by reason of their interest in the subject matter, and who have views to express which are based on a first hand study of the sources involved, will not hesitate to express themselves in public on the merits of this, to the end that those not so qualified may learn from the expression of authoritative opinions.

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